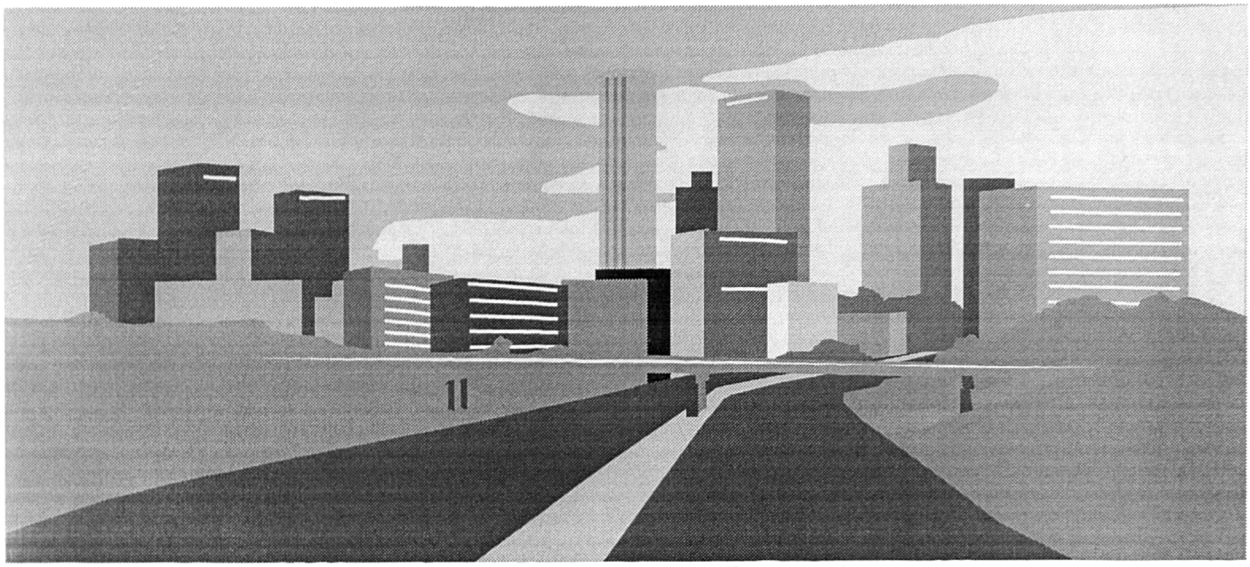
The construction industry in Zambia: Opportunities and constraints under the Structural Adjustment Programme and the Enabling Shelter Strategy



Thesis submitted to the University of Newcastle upon Tyne,
in
requirement for the fulfilment of the Degree of

DOCTOR OF PHILOSOPHY
(ARCHITECTURE)

Mudzibairi Sylvester MASHAMBA
B.Arch. (UNZA) M.Phil. Arch. (Ncl.) ACIOB (UK)

Department of Architecture.
Centre for Architectural Research and Development Overseas (CARDO)
September 1997

TABLE OF CONTENTS

PART ONE: THEORETICAL FRAMEWORK

1.0.0 CHAPTER ONE: Introduction and research methodology

2.0.0 CHAPTER TWO: Literature review

PART TWO: DATA ANALYSIS AND RESEARCH FINDINGS

4.0.0 CHAPTER FOUR: Creating an enabling environment

5.0.0 CHAPTER FIVE: Construction investment and finance under adjustment conditionalities

PART THREE: CONCLUSIONS AND RECOMMENDATIONS

CHAPTER EIGHT: Summary and conclusions

Abstract

In October 1991 Zambia abandoned one party politics and embraced multi-party politics. Upon winning the elections, the MMD Government abandoned UNIP's commandist development strategies for Neo-Liberal ones, in an effort to salvage the ailing Zambian economy and ensure development sustainability. In adopting the Structural Adjustment Programme and its affiliated policy of Enabling Shelter Strategy, the Government hopes among other things to stimulate supply in the hitherto ailing construction industry. It is postulated that, by applying Neo-Liberal policies, an enabling environment for private investment can be created, where an efficient and high productivity private sector is the main provider of construction supply.

This research aims at assessing the contributions made by the construction industry to the macro-economic in Zambia, during the first five years of the Structural Adjustment Programme and the Enabling Shelter Strategy. To do this, the study analyses the adjustment and enablement conditionalities that have been placed on the Zambian economy and then analyses their net effect on the supply-side of the construction market. The contention of in this study is that although the Structural Adjustment Programme and the Enabling Shelter Strategy have made positive contributions to the Zambian Construction industry, there are, however, areas that still need reviewing and changing in light of the experiences of the last five years.

The study was conducted using a survey research strategy, using both quantitative and qualitative analysis techniques. Primary data was collected during a field survey trip to Zambia between the 10th of October 1995 and 17th of March 1996. Secondary data on the other hand has mainly come from published literature, business journals, World Bank and IMF publications and Government publications and the media.

The conclusions reached at the end of the study are twofold. First they validate the postulations that have been made in both strategies, that enabling policies do indeed break down the structural rigidities in the macro-economy and the construction industry. The result of which has been to promote international and local private participation at different levels in the Zambia construction industry. Secondly, they show that despite the easy entry of construction firms in the industry, especially in the informal sector, the formal construction sector labour market has, however, continued to reduce. The study further concludes that some of the (adjustment and enablement) conditionalites, and Neo-Liberal (Government) measures meant to promote the economy and the industry in particular have had the net effect of reducing construction demand, thereby reducing overall construction output in response to reduced demand. In some cases, however, the study found that surplus local supply was diverted to exports within the region.

Acknowledgements

No doubt the development of a study like this one has been made with a lot of contributions from a number of individuals and institutions, too many to mention, however, some individuals and institutions deserve special mention for the help their rendered.

I am particularly indebted to my supervisor, Dr. Graham Tipple for his guidance, support, constructive criticisms and valuable comments which were very important in shaping and developing this study. Other members of the Architectural Department particularly Dr. Awotona and Dr. Kellett also deserve some thanks for their comments and criticism during the postgraduate seminars, which helped me in refining my arguments and clarifying my thoughts. I wish also to thank Professor Patsy Healey of the Dept. of Town and Planning for her assistance in preparing my survey research method and Dr. Weir of the Dept. of Economics for his help in the field of development and construction economics. Mr Peter Fewings from Northumbria University department of Construction also deserves special mention, for the keen interest, support and help that he rendered during the entire course of my study. The final thesis also benefited greatly from comments and observations from Dr. Jill Wells, Construction Department: South Bank University and Dr. Hentie Louw, Department Architecture: Newcastle University.

My sincerely gratitude also go to the Zambian people and Government for affording me the opportunity to serve in the housing policy steering committee charged with formulating Zambia's first comprehensive housing policy. My work with this committee generated my initial interest in this topic. My other thanks go to colleagues in the aforementioned committee notably Dr. Khonje, Hon. Sonny Mulenga, and Mrs. Mwanza, who were always ready and willing to share their experiences and data on latest developments in the Zambian construction market. I further wish to also make special mention of the various individuals and institutions that took part in the field survey.

My family: Mother, father, and sisters also deserve special thanks for their support and encouragement throughout the course of my studies. My wife and children: Tungamirai, Mudzibairi and Kasewe were always a source of inspiration, knowing the agony they underwent during the years of my absence from home. To them, the end of this research and my return home to Zambia marks a beginning of a happy reunion with their "lost" husband and father.

Mudzibairi Sylvester Mashamba
Newcastle Upon Tyne
September, 1997

List of Tables

List of figures

List of plates

1.0.0. CHAPTER ONE: INTRODUCTION AND RESEARCH METHODOLOGY

1.1.0 Introduction

Third world countries, particularly those in Sub-Saharan Africa, entered the mid 1970s and early 1980s in serious economic and development crisis. Whereas, Sub-Saharan Africa had managed to record unprecedented annual development growth rates in the 1960s and early 1970s (6.4%), the mid 1970s began to see a reduction in this figure (3.2%), and by the mid 1980s the figure had fallen to negative rates averaging -1.5% (World Bank, 1987, p. 16).

The Sub-Saharan Africa development crisis is well manifested in the region's huge foreign debt, rising unemployment, high infant mortality rate, and a reduction in the per capita income. These problems persisted into the 1990s, eventually culminating in serious social and political disorder in the region. Although the text book explanation to this crisis has always been to try and trace the origins of this malaise to the 1974/5 fuel crisis, there is now a growing school of thought that believes that the fuel crisis of the mid 1970s was only a 'tip of the ice berg', and that more needs to be done to the internal structures of these economies, if the situation is to be remedied (Campbell and Loxley, 1989; Cornia *et al*, 1992; Killick, 1982).

In an effort to arrest the above crisis, which is by no means restricted only to the Sub-Saharan region, billions of dollars in both local and foreign resources were poured into these countries, but little or no meaningful progress was recorded. In the more recent past, however, researchers and policy makers began to question the use of past development strategies to arrest the situation and in the process developed Neo-Liberal development strategies. Neo-Liberal development strategies of structural adjustment are conceived to be appropriate development strategies for ailing and former commandist economies[1], as they are postulated not only to alleviate poverty but also to ensure long term sustained development. In this new global phenomenon, the World Bank and the International Monetary Fund have been the key institutions in propagating structural adjustment policies to the rest of the Developing World. This has been achieved largely as a result of these two financial institutions giving development loans and aid to recipient countries on condition that they adopt structural adjustment policies.

The unique feature in this new development strategy, unlike previous development strategies, is that all national development activities and sectors of the economy are integrated and co-ordinated together through one principal programme; The Structural Adjustment Programme. For instance, in the past, development projects were carried out as purely project-based exercises without due regard to the combined social, political and economic effects on the

[1]Commandist economies refers to national economies which are centrally planned and controlled by the Government

recipients and prevailing local environment. Under this new Neo-Liberal strategy, however, local governance (often refereed to as the good governance factor), employment creation, the raising of productivity, and the related forward and backward linkages are all important components of the strategy. Every programme (unlike projects in the past) is intended to fulfil a set of economic, social and political aims and objectives (Burgess *et al*, 1994).

The underlying prognosis in the Neo-Liberalist thesis of the Structural Adjustment Programme as it relates to shelter and the construction industry, is that governments should concentrate on matters relating to legislation and governance, and leave construction (business) matters to business persons and institutions that are better able to carry out these tasks. To further facilitate the objective of solving the social, political, and economic problems, directly concerned with shelter, the Enabling Shelter Strategy was formulated, albeit within the realms of the Structural Adjustment Programme. The postulation in the Enabling Shelter Strategy is that it not only accelerates housing provision (to alleviate the present housing crisis), but goes further to improve water, electricity, and the road networks in urban settlements and municipalities. In this regard, therefore, investment in shelter and ultimately the construction industry is seen as a positive contribution to domestic job creation, the increasing of incomes, stimulation of savings, facilitation of domestic production and saving of the scarce foreign exchange (Woodfield, 1989, p. 46-49).

The withdraw of government from direct provision of construction services, market prices, liberalised trade and exchange rates, the break down of state monopolies, and the removal of subsidies has meant that the private sector now takes the leading role in shelter provision. In this new shelter and construction paradigm, democratisation entails the empowerment of the general public to make their own decisions on matters affecting their shelter needs, either through direct consultations or through their elected officials. The creation of an enabling environment, on the other hand entails governments removing regulatory and bureaucratic obstacles that have hitherto impeded development or discouraged the public and, more so, private sector initiative in shelter and construction industry development (UNCHS, 1996, p. 337-338). To this end, it is not surprising to see the tying of development aid and loans by the Western World and the International Financial Institutions to democratic and economic reforms in the Third World.

Events in Zambia, have followed more or less the global phenomenon described above. The turning point in fully embracing the Structural Adjustment Programme and the Enabling Shelter Strategy in Zambia came with the change of government in October 1991. The United National Independence Party (UNIP) a socialist-based party lost the elections to the capitalist-oriented Movement for Multi-party Democracy (MMD). The 1991 elections not only saw the

abandonment of socialist principals, but also the improvement in relations between the new Zambian Government and the International Financial Institutions (IFIs), relations which had hitherto been strained because of the strong socialist principles of the former UNIP Government.

To this end, the last five years (1991-1996) have seen the Zambian Government follow and implement the principles of structural adjustment and shelter enablement to the IMF's and World Bank's satisfaction. Subsequently, in 1996, Zambia graduated from the Structural Adjustment Programme (SAP) to the Enhanced Structural Adjustment Facility (ESAF).[2] In the last five years, therefore, trade and exchange rates have been liberalised, state monopolies broken down and sold to the private sector, subsidies withdrawn, and market pricing introduced. In the shelter market, housing which used to be tied to employment under the country's labour laws is no more, rent controls have been abolished, monopoly rights of the Zambia Building Society taken away, public sector houses (both local and central government) are been sold to sitting tenants and full cost recovery for public services have being effected.

After five years of these Neo-Liberal measures, there is now a growing school of thought (including academics, industrialist and politicians) that is questioning the whole development strategy of the Structural Adjustment Programme and the Enabling Shelter Strategy as experienced in Zambia, especially in the way they affect the construction industry. Questions are now being asked as to whether the imposition of these two Neo-Liberal policies have helped the Zambian construction industry in particular and the economy in general. This thesis is, therefore, an attempt to answer some of these questions.

1.1.1 Structure of the study

This thesis is divided into three main parts: Part one covers the introduction and theoretical framework. Part two deals with the field data and analysis and finally Part three covers the research conclusions.

1.1.1.1 Part one: The theoretical framework

Part one begins with chapter one, which serves to introduce the subject matter under discussion and explains the methodological approach and strategy chosen in meeting the stated study research aims and objectives. It is followed by the literature review: chapter two, and sets the context and literature in which the research study lies. Considering the vast

[2]Enhanced Structural Adjustment Facility (ESAF) is a country status that the World Bank and the IMF gives to a country that has successfully embarked on SAP. ESAF carries with it concessionaire lending rates and more favourable conditionalities than those given under SAP.

amount of literature available on shelter and development issues, the literature review is deliberately concentrated on the Third World, and Sub-Sahara Africa in particular. The literature review has been arranged so as to trace the historical development of shelter and development strategies; from social housing and the welfare state system, through to self-help programmes and right up to present day shelter enablement policies. The literature review also covers macro-economic aspects of the construction industry in Sub-Sahara Africa. In this way, the chapter leads the reader to the reasoning behind present day Neo-Liberalist shelter and development strategies. The chapter ends by looking at rival theories, dominated by the Neo-Marxist philosophies and the other liberal criticisms, from independent minded researchers and scholars. Having devoted chapter two to contextualising the literature under which our research work lies, chapter three then introduces the reader to the background information as to what led to present day shelter and construction industry problems in Zambia. The focus of this chapter is on the historical developments in the Zambian construction industry, its successes and failures, and then draws conclusions as to the reasons why this should be so. This information is meant to help in relating the new strategy of reforming the industry under structural adjustment and shelter enablement in subsequent chapters.

1.1.1.2 Part two: Data analysis and research findings

Part two contains the main thrust of the research work, where the field and secondary data is processed and analysed. It contains four chapters, arranged to deal with the different specific areas of the Zambian construction market and the resultant macro-economy as related to our study. Chapter four deals with government efforts in creating an enabling environment through legislation, whereas chapter five looks at efforts applied to the construction investment and finance markets with a view to stimulating construction supply. Chapters six and seven, focus on the Zambian construction labour market and the supply levels respectively, in view of the imposition of both the Structural Adjustment Programme and Enabling Shelter Strategy.

1.1.1.3 Part three: summary and conclusions

Finally in Part three, we summarise our research findings from chapters three to seven, and then draw conclusions as to how the application of the two Neo-Liberal policies have affected the Zambian construction industry and ultimately the rest of the economy.

1.2.0 Study aims and objectives

From the literature review in chapter two, it will become quite clear that the strategies of structural adjustment and shelter enablement are relatively new and untested strategies; strategies that have to be tested on the ground to ascertain their validity. Pugh (1989, p. 249) has stated that the Neo-Liberalist principals on which these two strategies are based are not

only without empirical evidence to support their postulated claims, but are also "foreign" to Third World countries.

> The new theory of housing was based upon Neo-Liberalist political economy with emphasis upon individualism, free markets and the user pay principle. The new theory was formulated intellectually in the early 1970s, without any really convincing practical experience in the actual urban setting of the developing countries... the theory had to be adjusted and broadened in the light of practice (Pugh, 1989, p. 249).

In an effort to contribute to this body of knowledge and thence the global debate on the true effects of the Structural Adjustment Programme and the Enabling Shelter Strategy on the construction industry and the resultant national development, this study therefore aims at validating the two policies though a case study in Zambia. Zambia being a Sub-Sahara African country that has applied both strategies in an effort to sustain its construction market and foster national development will be taken as a case study to validate the theories in the two strategies. This proposition is based on findings by most researchers, that investing in the construction industry leads to economic growth (Moavenzadeh, 1987, p. 97-86; UNCHS, 1996, p. 224). This research project further aims at drawing the attention of scholars, policy makers, bureaucrats and implementers of policy, to those aspects of these Neo-Liberal policies that are working and fulfilling their desired results and those which ones are not. To meet these study aims, the research sets out the following objectives:

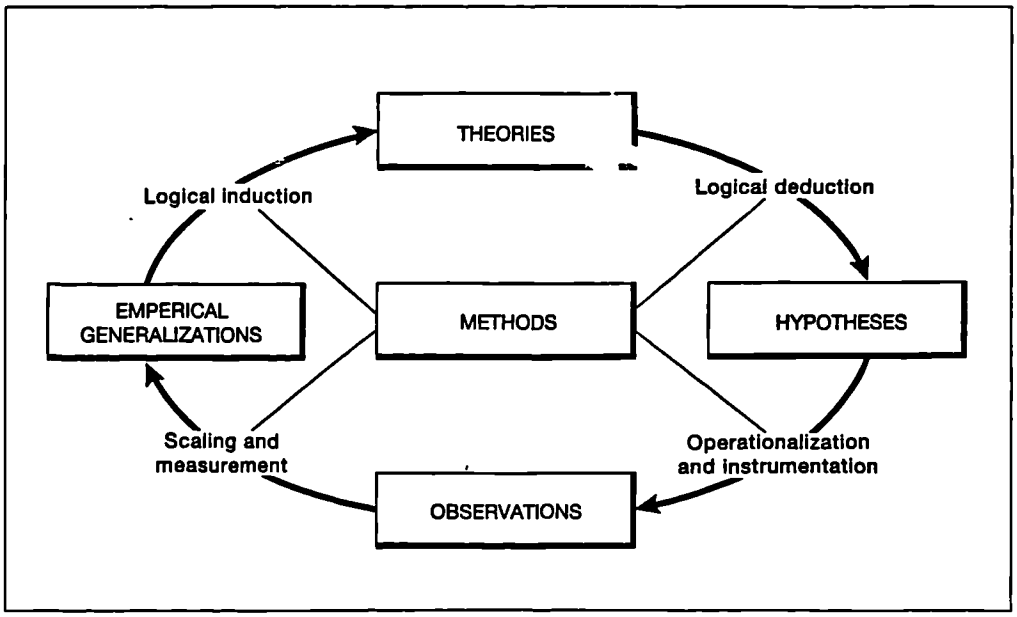
- To document the transformation of the Zambian construction in relationship to the macro-economy in the light of the imposition of the Structural Adjustment Programme and enabling shelter strategy.
- To understand and analyse the policy, design and implementation of the Structural Adjustment Programme and Enabling Shelter Strategy as they relate to shelter and the construction industry in Zambia.
- To evaluate the construction industry and its contribution to national development in Zambia, by making comparisons to construction output and other construction indicators, prior to and after the application of SAP and shelter enablement.

The key question to be asked in this study, therefore, is "has the Zambian construction industry improved with the resultant positive national development growth trickling down the rest of the economy as a result of applying both the Structural Adjustment Programme and the Enabling Shelter Strategy." This study focuses on national development issues primarily under the construction industry. In other words, this study examines the direct impact of the structural, fiscal and monetary changes made to Zambia under the strategies of adjustment and enablement and the resultant changes bought about to the construction industry. To answer the key study question of whether SAP and the enabling shelter strategy have improved the

performance of the Zambian construction to national development (i.e. new jobs created, increased national income, increased housing stock and Gross Fixed Capital Formation [GFCF]), the thesis will study the contribution of the construction industry before and after the application of the two aforementioned strategies.

By verifying the conditions under which the strategies relating to the Structural Adjustment Programme and the Enabling Shelter Strategy will produce the postulated results in the Zambian construction industry, we are inevitably in the process which Crano and Brewer (1986, p.15) have called theory purification: purifying the theories pertaining to structural adjustment and shelter enablement under local Zambian conditions. Theory purification involves the act of refining and /or recasting a theory in the light of new findings on the ground.

Fig. 1.1 Theory development (and purification process)



Source: Smith 1991, p. 9

1.2.1 Study research method

This thesis has basically two aims, which are

(1) to compare and analyse the Zambian construction industry before and after the application of the Structural Adjustment Programme and the Enabling Shelter Strategy.

To meet this objective the study will rely on measurable economic indicators (variables) of the Zambian construction industry, such as employment figures, Value added, new and number of construction firms, exports, and the Gross Fixed Capital Formation (GFCF).

(2) to evaluate the effects of the two Neo-Liberal strategies above on the Zambian construction industry though responses from the construction firms concerned. This information is currently not available as published data. To meet this particular study aim, therefore, a sample survey has been conducted on the Zambian construction industry to solicit their views on the effects SAP and the Enabling Shelter Strategy have had on their construction businesses. The study will be conducted in three of Zambia's cities: Lusaka, Ndola and Kitwe, all with very distinct economic bases and characteristics, from which a general pattern on Zambia will be drawn. In this respect, it will also be important to include all categories of firms in the construction industry to avoid any biases on the results obtained.

Given that the two strategies of adjustment and enablement under study are, in the main, supply oriented theories, we took the view that the best way of testing the effectiveness of the two theories was to see how the construction supply constraints had been removed or minimised by the application of these two Neo-Liberal strategies. In this connection, therefore, the contractors, construction consultants, construction materials manufactures and suppliers were chosen as the target group for answering our survey questions (respondents). Note however, that this position does not ignore the steps taken under the two strategies to stimulate demand. Resources (time, financial and human) were not adequate to cover both sides of the market. Besides, improved supply is said to induce demand and the two are always related and, therefore, difficult to separate in the market (Warren, 1993, p180-197).

1.3.0. Operationalization and hypothesis formulation

In setting our study aims and objectives, we have stated that we want to assess the effect of the Structural Adjustment Programme and the Enabling Shelter Strategy on the construction industry and the national development status of Zambia. However, without operationalising the term "national development," it remains ambiguous and confusing, thus we need to define exactly (operationalise) what we mean by it (at least for the purposes of this study); a process Smith (1991) has defined as operationalization. To illustrate the confusion and disagreements among scholars on the common definition of national development, Agrawal and Kundan Lal (1994) attempted to define it, but still failed. They debated the various methods and indicators used world-wide and still could not come up with one without faults or demerits. Among the many methods and indicators that they looked at were the following, Gross National Product (GNP), human and natural resources index, literacy rate, life expectancy index, and industry and technological advancement. On the other hand, Todaro (1994, p. 18) has loosely defined 'development' as " both a physical reality and a state of mind in which society has, through some combination of social, economic and institutional processes, secured the means for obtaining a better life."

In the context of this study, however, national development will be taken to mean reduced unemployment rates, low inflation rates, high Gross Fixed Capital Formation, increased national income, increased export base for construction exports, and high rate of local materials utilisation in the macro-economy. This definition has deliberating been framed in this manner, so as to be identical to the desired goals of both the Structural Adjustment Programme and the Enabling Shelter Strategy. In which case, therefore, should this research project conclude that Zambia has indeed experienced national development from the construction industry perspective as a direct result of applying the two Neo-Liberalist strategies, then the study will have validated the aforementioned strategies.

As we are researching on an already existing theory, we shall use the deductive scientific model to formulate our hypothesis; where a hypothesis is deduced from existing theories and tested against field observations (Baker 1994, p. 41, see also fig. 1.1). Given the aims and objectives of the Structural Adjustment Programme and its sectoral programme of the Enabling Shelter Strategy (as will be seen in chapter two), we shall draw the following hypothesis: that the imposition of the Structural Adjustment Programme, with its affiliated policy of shelter enablement, has not only helped in increasing net construction supply in Zambia, but has also helped in fostering national development in Zambia.

It should be noted, however, that the above hypothesis is very abstract to allow for empirical verification, hence the need to break down our hypothesis to small workable hypothesis known as an operative hypothesis. Whereas, the main hypothesis will be looking at the overall impact of the Structural Adjustment Programme and the Enabling Shelter Strategy on the Zambian construction industry and the resultant national development, the minor hypothesis will be testing the validity in Zambia, or any country for that matter, of having to apply the various structural adjustment and shelter enablement conditionalities to achieve the desired aims and objectives of both development strategies. In this way, we hope to analyse the two related development strategies in greater detail than would be otherwise be possible.

1.3.1 Concepts and variables

The process of operationalization involves the breaking down of our main hypothesis into small measurable concepts. Baker (1994, p. 115) has defined concepts as abstract terms employed to explain or make sense of everyday life. No doubt, as existing theories, the Structural Adjustment Programme and the Enabling Shelter Strategy already have their own concepts. For example, the Structural Adjustment Programme is often reduced to the concept of 'Adjustment' and while the Enabling Shelter Strategy is referred to by the concept of 'Shelter enablement'. Another common concept we shall constantly come across in this study is the concept of 'Adjustment Conditionalities' or simply 'Conditionalities'. The concept of

conditionalities refers to the set of conditions that were originally set by the IMF and the World Bank for recipient loan/aid countries to meet before giving them loans/aid. These conditions include among other things, foreign exchange liberalisation, democratisation, privatisation of major public sector companies, market pricing, removal of subsidies, civil service reforms, and so on. We will explain more about these in the next chapter.

Similarly, the postulated resultant improved construction supply and increased nation developed will be reduced to the concept of national development. We can therefore, effectively express our main hypothesis in the following conceptual expression:
Adjustment + Shelter enablement (inputs) = National development (Increased construction out put)]. In-turn we shall subdivide our three concepts above into smaller and measurable variables of either independent variables if they are on the left side of the equation and dependent variables if they are on the right side of the equation.

The validation of our hypothesis will thus be based on comparing the net contribution of the Zambian construction industry to national development, prior to and after the application of the Structural Adjustment Programme and the Enabling Shelter Strategy. For this purpose, therefore, we shall use our measurable concepts (output) of national construction output and employment figures, value added for construction industry (in national economic indicators) to assess the performance of the industry prior to and after the application of SAP and the Enabling Shelter Strategy. It must be made very clear, however, that this was not always possible, mainly due to the absence of relevant data, especially before the Third Republic[3]. Monthly and yearly statistical publications that had hitherto been published regularly were no longer being published. Although the rate of publications has since improved, it is still not regular nor does it have all relevant economic indicators. To counter this weakness, the thesis will be using primary field data to supplement and complement published secondary data.

1.4.0. Research assumptions and choice of location samples

The argument in making generalisations from observations drawn from three cities to the rest of the country is well made by Edmund Leach when he argues that:

> It is assumed that a social system exists within a somewhat arbitrary geographical area; the population involved in this social system is of one culture; the social system is uniform. Hence the anthropologist can choose for himself a locality of "any convenient size" and examine in detail what goes on in this locality; from this examination he will hope to reach conclusions about

[3] Zambia's political history is divided into three Republic eras, The First Republic began with the birth of Zambia as an independent state from Britain in 1964 based on multi-party politics, the Second Republic starts from 1971 when Zambia abolished multi-politics for the One-Party political system, and finally the Third Republic is what ushered in Multi-Party politics once again in 1991.

> the principles of organisation operating in this particular locality. He then generalises from these conclusions and writes a book about the organisation of the society considered as a whole (Quoted from Hamel et al., 1993, p. 4)

The limitations in being able to gather data from the whole of Zambia are well known: financial, logistics and time constraints. In this connection, therefore, the collection of data was done in the three cities of Zambia, namely Lusaka, Kitwe and Ndola[4]. This decision was taken against the greater temptation for the researcher to restrict the collection of data to the city of Kitwe only, the researcher's home city. The decision to pick on all the three cities of Zambia was based on the fact that 84% of all construction firms registered with the Government Buildings Department are in Lusaka and the Copperbelt provinces. Note also that all the three cities have their own distinct roles and characteristics, such that the omission of any one of them could have skewed the results.

For example, restricting the study to Kitwe, Zambia's chief mining town, could have raised questions like, 'aren't the results not only peculiar to this city, because of its dominance by the copper industry? In the same vein, picking Ndola or Lusaka, the industrial and administrative capitals of Zambia respectively, would have skewed the results to one side or the other. But, by having the study conducted in all the three cities, we hope to avoid that pitfall. Another very imported reason for picking these three cities lies in the fact that the two theories under study are based on urban world phenomenon, and since the three cities under study account for 51.8% of Zambia's urban population and 21.8% of the total population, there could not have been any better choice of locations (percentages calculated from Central Statistical Office, 1991). Although figures are not available for the percentage share of the Gross Domestic Product (GDP) produced in these three cities, it is reasonable to say that the bulk of Zambia's GDP is produced here, if the roles played by these three cities are anything to go by.

1.5.0. Research strategy: The survey research approach

The importance of research strategy or methodology to science whether social or natural can not be over emphasised. The method employed in finding out knowledge is of crucial importance to the research project so that the findings can be said to be scientific. Baker (1994, p. 37) goes even further to argue that science is simply doing empirical research;

> It is based on observable evidence (what the field researchers saw, answers to questions, reactions to experimental stimuli) which has been carefully recorded and presented so as to make it as close to the actual observation as possible. This attention to recording and presenting the observations carefully and precisely is a part of the art to make these studies scientific. Science depends

[4]At the time of the field survey, Lusaka, Kitwe and Ndola were the only cities in Zambia, Livingstone the tourist capital has since been made the fourth city.

> on a logical and rational system of rules for thinking and using language; therefore, precision in the measurement of what is being studied and clarity in the presentation of data are both necessary.

Similarly, Smith (1991, p. 35) in tracing the importance of methodology to research, goes on to argue that;

> Science is a series of methods for knowing, rather than simply believing or opining; it is an attempt to learn, using research methods, how and why things fit together... Theories are abstractions- that is, ideas in the scientist's head concerning how to organise the empirical generalisations he or she observes... A theory is correct if it should produce hypotheses that are supported through observation... the process of observing instances that confirm or disconfirm hypotheses requires some means of precisely and explicitly measuring the variables in the hypotheses so that other trained scientist can replicate the work.

In appreciation of the importance placed in the systematic collection, arrangement, and analysis of data in research, as emphasised above, this study will be guided by the survey research study approach. The mode of gathering research data in social survey research is usually through personal interviewing or mail questionnaires. The survey research approach uses a set of questions on a number of chosen respondents (sample) considered representative of the individuals, group/s or organisations to be studied. The intention in conducting the interview or sending the mail questionnaire to the respondents is to elicit specific information from them. A representative number of responses is gathered from a chosen sample from which results can be aggregated and then generalisation to the rest of the working population. The results obtained at the end of the survey can then be used to develop, support or refute a theory (Baker, 1994, p. 10). It should be made very clear, nevertheless, that generalisation is only possible if the sample under study is representative of the working population to which the research wishes to make generalisations (Smith, 1991, p. 125).

In a survey research as in most research strategies, the most important source of information comes from respondents themselves. In our case, therefore, the respondents will be the sampled construction firms. It is important, however, to realise that events in the Zambian construction industry, measures in the Structural Adjustment Programme and the Enabling Shelter Strategy are dynamic and therefore constantly changing. In this regard, we have tried very much to keep ourselves abreast of the latest developments in the subject matter by constant reference to local newspapers, the Zambia Business Journal: Profit, the (Zambia) Financial Mail, Statistical Bulletins, Government and World Bank annual publications. Annual reviews from the Zambia Privation Agency, the Zambia Investment Centre and the Ministry of Finance are also intensively used.

1.6.0 Quantitative and qualitative analysis

Whereas there are a number of research strategies to draw from, there are only two main methods of analysing social research data; qualitative and quantitative analysis. But as most writers have rightly pointed out, these two methods are not mutually exclusive, on the contrary the combination of both methods in a single research study complement each other in their weaknesses and strength. For instance, Bryman (1988, pp. 61) argues that the most fundamental characteristic of qualitative research is in its express commitment to viewing events, action, norms and values. While, on the other hand, the quantitative method has been credited with rigour and reliable data that is systematically collected and can be readily checked by other researchers (Bryman, 1988, p. 103).

It is important, however, to note that the choice of the research method to be employed is dependent solely on the research questions raised in the research or on the issue been investigated. Research studies dealing with attitudes, social process or values are best dealt with qualitative methods and those that deal in variables like gender or class, involving large populations reduced to samples, are best dealt with quantitative methods. By way of definition, Strauss and Corbin (1990, p. 17) have defined the qualitative research method as "any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification..." By the same token, therefore, we could define the quantitative research method as any kind of research that produces findings by statistical procedures and other means of quantification.

There would appear to be a general consensus among researchers that research studies dealing with socio-economic and political conditions are best dealt with by qualitative research methods. For instance, Baken and Van der Linden (1993, pp. 7 & 8) criticised the World Bank (and indeed the IMF) in its quantitative methodological approach in evaluating the land market in an enabling shelter environment. They argued that the mere collection of economic figures without analysis of the contextual factors and rational economic behaviour related to them gave rise to conflicting results. Malpezzi (1994, p. 461) a former World Bank economist, concedes to their arguments by advocating for more contextual analysis when studying structural adjustment related policies.

The Neo-Marxist school on the other hand has always relied on qualitative research methods in its analysis of human relations and in understanding the inherent contradictions between the proletariat and the bourgeoisie (Shaw 1975). The Neo-Marxist school tends, therefore, to be very wary in using quantity analysis in social sciences The use of both qualitative and qualitative methods in our study, therefore, will eliminate the arguments against findings

which were predominately based on quantitative methods and any criticism from the Neo-Marxist school.

Within this goal of research generalisation are two sub-conditions to be fulfilled; generalisation across subjects and condition replicability. Generalisation across subjects refers to generalisations that are applicable irrespective of the subjects, for example in our study, generalisations that would apply to all construction firms; small, medium or large and formal or informal construction firms, hence the inclusions of all the these types of firms in the study. In other words if our study was to find that only "certain subjects", e.g. informal and small scale contractors, had responded as postulated in the two theories and the rest did not, then our theories would have failed the generalisation across subjects test. Notwithstanding this, it is important to note that certain postulations refer only to specific subjects, for example the aspect of intensive employment creation is a specific element that is tied to small scale labour intensive construction firms and would not, therefore, apply to large and capital intensive firms.

Triangulation of research data was used to check on the reliability of data sources. Using this method, data from various sources (i.e. published documents, government and private media information, local and central government sources) was used as a check against our findings. This was done so as to test the reliability of the data and any differences (if any) could be thus identified and explained.[5]

1.7.0 Profile of the Zambian construction industry and survey respondents

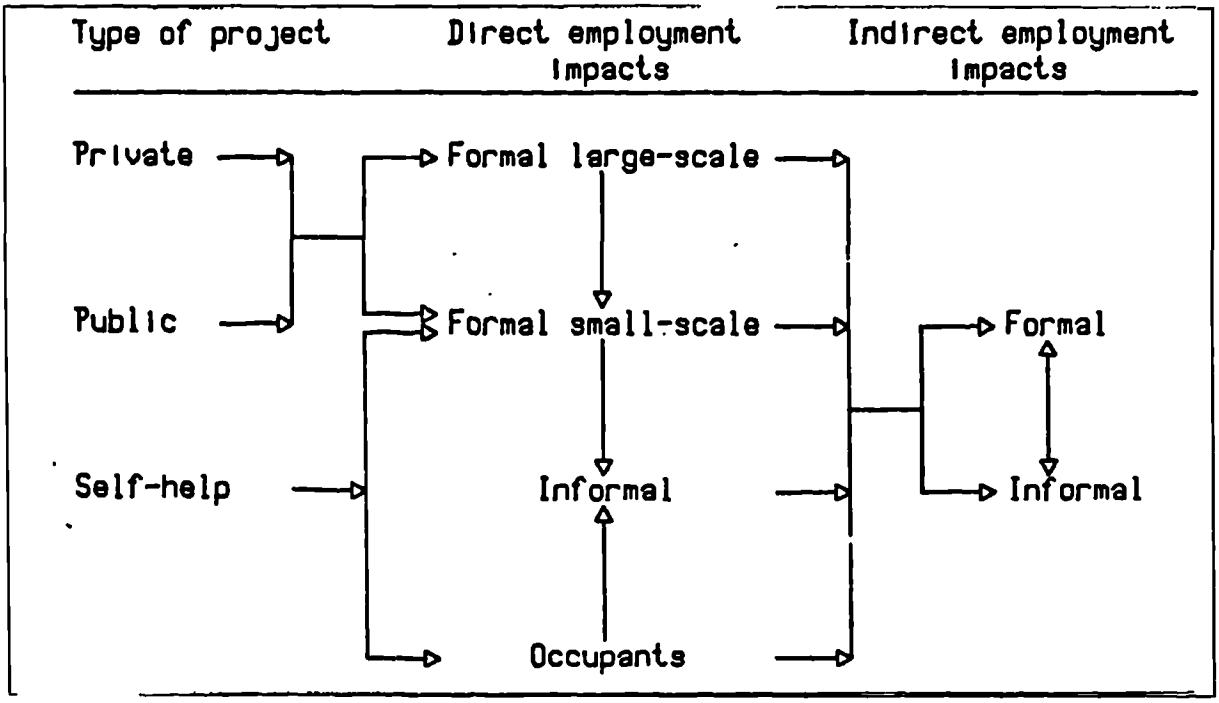
As this study will be analysing the Zambian construction industry, it is important that we give a brief profile of its characteristic and nature of business operations. As a former British colony, Zambia inherited the British construction operation procedures. The modelling of Zambian construction courses at trades schools, colleges and the universities has further ensured that British construction practices, contracts and procedures continue to be practised to this day. However, whereas the construction industry in Britain has undergone various changes in the last 30 years, especially in the standard form of contract, the Zambian construction industry has not, save for the active participation of the informal construction industry, who are allowed to operate on small government and public contracts on a less formal basis.

The Zambian construction industry comprises civil and building contractors, consultants, manufactures of construction materials and their suppliers (hardware shops). It is important to mention that in Zambia, the law does not allow construction consultants to be engaged in the

[5]In this respect, the assistance rendered from friends and colleagues back in Zambia is greatly appreciated.

manufacture and/or the supply of construction materials. There is quite a lot of interaction among all these different sectors of the industry. The informal sector seems to have increased its interaction with the rest of the other sectors in the industry, especially in supplying them with door, and window frames, burglar bars, crushed stones and building sand. This strong linkage between the two sectors, is not only evident in Zambia, Klaassen *et al* have also witnessed similar linkages in other Third World countries. They have best summarised the strong linkages between the formal and informal construction sector in the diagram below.

Fig. 1. 2 Linkages between the formal and informal construction sectors



Source: Klaassen et al 1987, p. 43

1.7.1 Structure of construction firms in Zambia

Construction firms in Zambia can be classified into four main categories: of (a) informal sector, (b) small scale formal, (c) medium scale formal and (d) large scale formal construction firms. Table 1.1 below will help illustrate the characteristics of each of the four categories. It should be noted, however, that this classification, and (personnel and plant) requirements listed below, pertains only to government construction contracts and some other public (parastatal) sector firms and local authorities. Private sector clients have their own individual requirements in terms of the expertise and plant with the construction firms they engage.

Table 1.1 Classification of consultants, contractors and suppliers of construction materials by the Government Buildings Department- Lusaka

Category	Value	Personnel	Plant and Equipment for contractors only
General Maintenance	Up to K15 000:00	4 Tradesmen/women	Any mode of transport (on hire basis/ or capacity to hire)
GI	From K15,000:00 to K20,000:00	1 Technician and 4 Tradesmen	1 Pick-up 1 Concrete mixer
GII	From K20,000:00 to K50,000:00	2 Technicians and 4 Tradesmen	1 Pick-up 2 Concrete mixers
GIII	From K50,000:00 to K120,000: 00	1 Professional, 2 Technicians, and 5 Tradesmen	1 Tipper 2 Pick-ups 2 Concrete mixers
GIV	From K50,000:00 to K250,000:00	3 Professionals 4 Technicians and 10 Tradesmen	2 Tippers 2 Pick-ups 4 Concrete mixers
GV	From K250,000 to K unlimited	5 Professionals 6 Technicians and 20 Tradesmen	4 Tippers 5 Pick-ups 6 Concrete mixers

Source: Complied from data supplied by the Government Buildings Department, Oct. 1995

1.7.1.1 Informal sector construction firms

Informal sector construction firms, normally consist of one to four workers. In most cases these "workers" will be family members of the owner of the firm, who is carpenter, bricklayer, printer or just an entrepreneur in the business. For example, one of our respondents in this study is a retired medical assistance from the Army with no building experience, but relies on experienced workers and relatives. The informal construction sector is characterised by the fact that this sector does not operate on the standard western business norms or within the country's tax framework. For instance, whereas firms in the formal sector are not allowed by law to be consultants as well as contractors or even suppliers of construction materials at the same time, in the informal sector such practices are very common. Another distinct feature of the informal construction firms in Zambia is that they tend to operate from residential homes or in local council markets (for those in manufacturing and supply) or by the main road side (suppliers, see plates 7.2 and 7.4).

Another striking feature that was observed during the field survey was the willingness of firms in this sector to deal in very small quantities and to offer credit to its customers, services not normally offered by the formal construction sector. There was also a strong tendency by firms in this sector to vary their prices to suite the customers purse or if the customer haggled. For example a customer driving an expensive car was more likely to be charged a higher price than one that came on foot.

Unfortunately, there is little or no literature on the informal construction sector in Zambia. For example, early studies on the Zambian construction industry by Christie (1971), Chakwe (1983) and Fewings (1991) all show little or no significance of this sector in the overall construction industry in Zambia. Christie (1971, p. 378) went further to say that in the early 1960s, the Zambian construction industry was more British than Zambian. In this study, however, it will soon be made clear that the informal sector is increasing playing a major role in the industry. For instance, 36% of our survey respondents chosen through snowball sampling, in the small scale category (1-49 workers) of the construction sector were in the informal sector. Contrary to common belief, we also found that the informal construction sector was not only active in informal settlements, but also in convention and mostly former council houses where they were actively engaged in building security walls, house improvements and extensions, welding burglar bars and also supplying building materials.

Plate 1.1 Window frames with burglar bars made and sold by the informal sector by the main road side in Kitwe

For tendering purposes and procedure the Zambian government Buildings Department classifies this category of construction firms as *Grade G.M.* (General Maintenance). Informal construction firms are allowed to tender for any government contract up to the value of K15,000,000 ($11,538) provided they have 4 tradesmen/women with them. The Private sector and individuals clients tend to be less demanding in terms of the minimum requirements that they request from this sector. The use of informal sector contractors is limited, however, in

cases where the money used is borrowed from Commercial banks or the Zambia Building Society. These formal financial institutions do not allow the use of informal construction firms on their funded projects.

1.7.1.2 Formal sector construction firms

Unlike firms in the informal sector, firms in the formal sector are formally registered with the authorities through the registrar of firms and will normally also be affiliated with their respective bodies. For instance, consultancy firms will be registered with their respective professional bodies: architects with the Zambia Institute of Architects (ZIA), engineers with the Engineers Institute of Zambia (EIZ), surveyor with the Surveyors Institute of Zambia (SIZ), whereas the contractors are affiliated with the Associated of Building and Civil Engineering Contractors (ABCEC). All these bodies work closely together, especially in matters of building and civil engineering contracts. For example, all the bodies above are signatories to the Joint Standard Form of Building and Civil Engineering Contracts, which is basically an adoption of the British Joint Contracts Tribunal (JCT). Firms in the formal sector are be reclassified in three groups depending on their size in manpower and investment in plant and machinery.

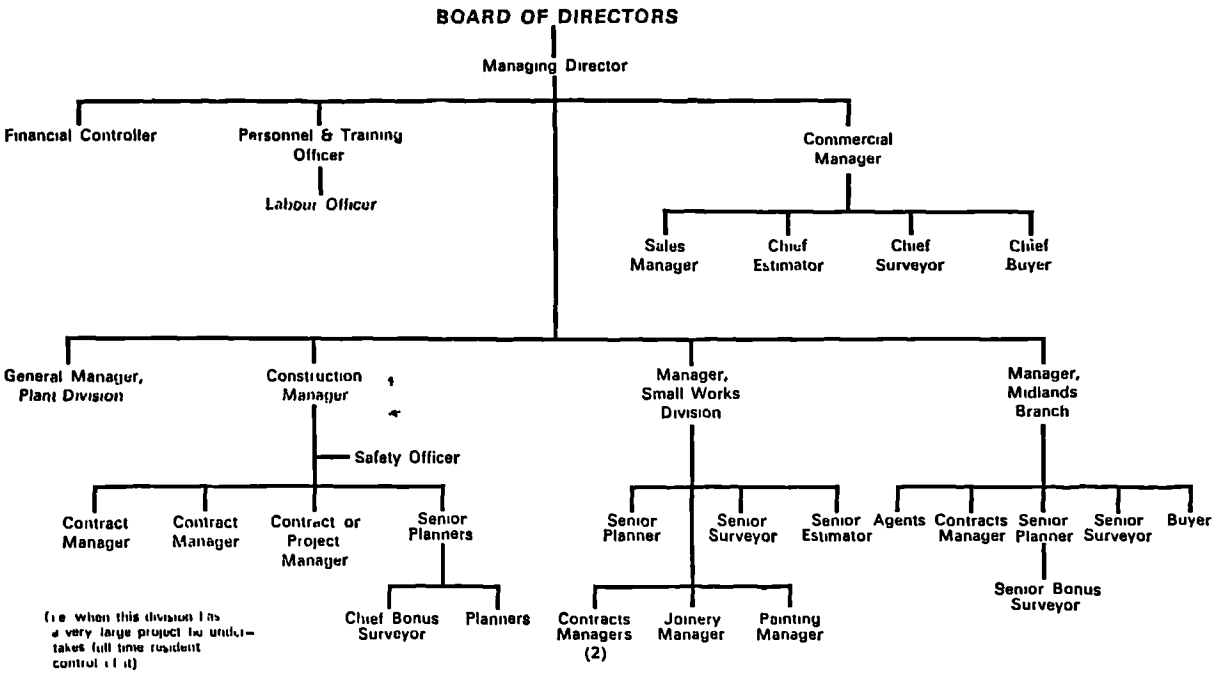
(a) Small scale (formal) construction firms; these have a work-force which ranges from 1 (for traders in hardware shops) to 49 workers. However, what makes this construction sector different from the informal sector above, is that the small scale (formal) construction sector follows professional business practices and have permanent business premises (not in residential areas). In that sense, therefore, small scale (formal) construction firms in Zambia operate more less like any other firms in the developed world. Most private consulting and contracting firms tend to follow under this category.

(b) Medium scale construction firms; these are firms with workers ranging from 50 to 499 workers. Medium scale construction firms also tend to carry out bigger construction contracts that (b) above, and therefore, tend to have larger capital investment. Medium sized construction firms fall under the GII to GIII category of the government Building Department, which allows or entitles them to tender for any government contract from K20,000,000 to K250,000,000 ($15,385 to $192,307). Under this classification, therefore, they are required to have professionals, technicians, skilled and unskilled workers (see table 1.1 above). Most of the firms are either local or international private limited firms or parastatals.

(c) Large scale construction companies: this comprises of construction companies with a labour force of more than 500, with a number of professionals, skilled, and unskilled workers. Because of the huge numbers of workers it is common to find a specialised management

structure: finance, personnel, plant, estimating, contracts, and so on in these firms. Figure 1.3 below shows a typical management structure of any of the large construction companies in Zambia. This figure shows how power and management responsibility arranged in a pyramid structure starting from the Board of Directors, through the Managing Director to the various directors, managers, officers down to the last worker. Like the medium scale construction companies, large scale construction companies have a sizeable investment of capital; machinery, plant and large site offices. Large scale construction companies are classified under the GV category by the government Buildings Department. Companies under this category have an unlimited upper limit for the nature and type of government construction project they can tender or be invited for. The large capital, plant and skilled manpower needed for this category of construction firms thus means that there are only a very few firms in this category most of which are either government, foreign or part foreign owned. Although there are currently only 34 construction companies in this category, only five companies; Delkins; Apollo; Kajeema; Minestone and Lewis tend to dominate this category of firms, following the closure of the state owned Zecco construction company soon after 1991.

Fig. 1.3 Typical Management structure of a large construction firm in Zambia



Source: Brech 1971, 237

1.7.2 Construction commissions, tendering and contractual procedures

Construction commissions, tendering and contractual procedures in Zambia are all based on the British traditional system. The formal commission of any construction job starts with the

client approaching a consultant, who could be an Engineer, Quantity Surveyor or Architect depending on the nature on work. It is important to note, however, that in Zambia, professional consultants a firms are not allowed to advertise for their work nor to compete on the basis of consultancy fees[6]. Individuals or firms, can advertise their services as long as their do not belong to the professional bodies of Architects, Quantity Surveyors, or Engineers and do not call themselves so. This loophole in the law, thus gives the informal sector "consultants" who are normally retrenched draftsmen and women, an opportunity to practise their trade. Local Councils allow any work to be submitted for planning approval as long as the submitted plans fulfil their by-laws. There are, however, calls from the professional consultants to restrict the type and nature of construction contracts that can be done by the informal sector or unregistered consultants. By-laws in all towns and cities further require that all construction taking place in their jurisdiction is closely monitored and supervised by the council's own building inspectors.

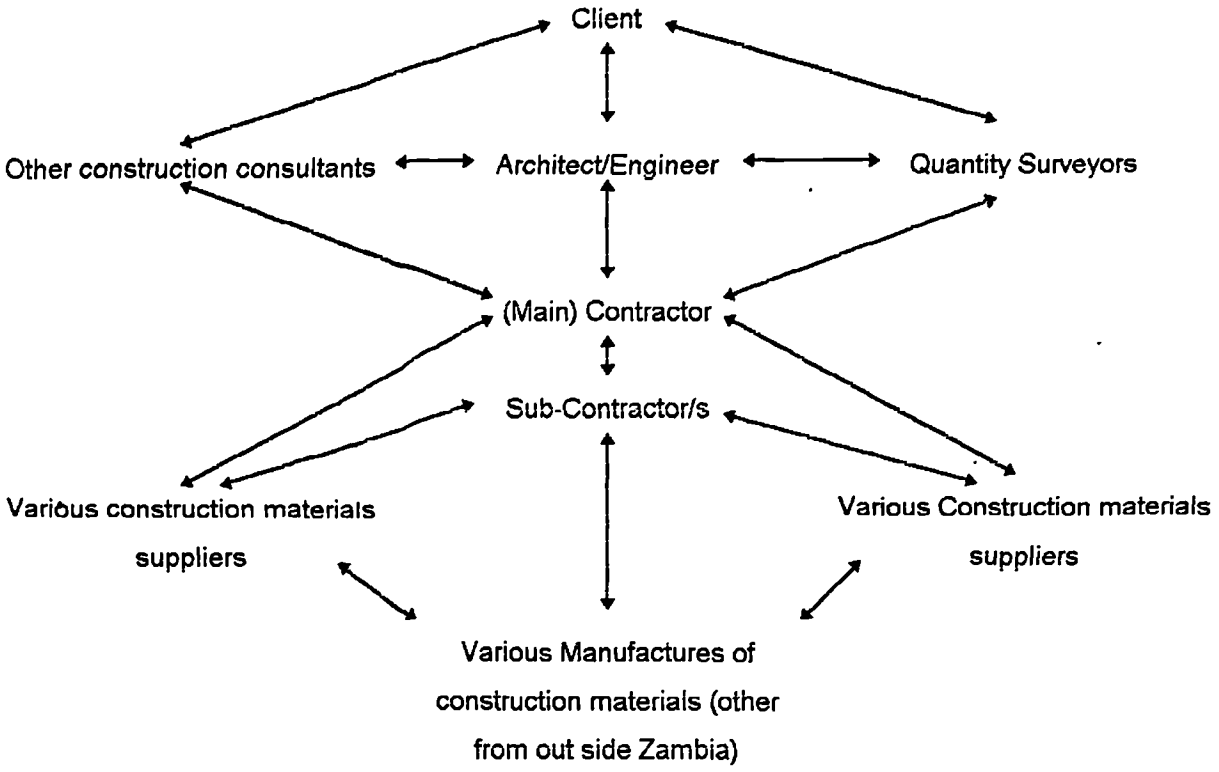
> No person shall construct a domestic dwelling or materially change the use of such or part thereof without the prior permission from the Council of the area in which the building is, or is to be situated. The form of submission is to be in accordance with the Council regulations (Local Government [Urban Building and Drainage Regulations] Act of 1968).

In reality, however, there is little enforcement of this Act, as the councils do not have the qualified manpower and resources to do so.

Once the consultant/s have been appointed and the plans for the project drawn and approved by the client, the consultant/s in consultation with the client appoint a contractor. In large projects, this may involve one main contractor and several other sub-contracts and nominated suppliers. The involvement of all these various construction professionals and their firms thus clearly justifies the having of only one Standard Form of Contract among them. Depending on the scale of the project, the Standard Form of Contract can be one WITH or WITHOUT Quantities (Bill of Quantities (BQ) from the quantity surveyor). The Standard Form of Contract not only stimulates the various roles and obligations of each party to the contract, but also lies down the procuring procedures and methods of settling disputes should they arise. A typical contractual relationship chart is shown in fig. 1.4. The informal sector does not follow these elaborate contractual procedures. With informal sector firms, the contractual agreement tends to be very informal, in most cases the whole contract is only verbally agreed to, except in cases where they are dealing with institutions or clients that insist on a written contract.

[6] The Zambian government has since liberalised all consultancy fees as from 1996.

Fig. 1.4 Contractual relationships in the formal Zambian construction industry



Source: Mashamba 1997; based on professional experience in the construction industry

The Zambian tendering system like the British system and many others, is based on the premise that the client through his/her consultants selects from a group of tenders one who is best able to carry out the work at the minimum of cost. To achieve minimum construction costs, the contractor therefore, has to ensure that he/she has to find inexpensive sources for his/her materials. This is where the cheap construction materials from the informal sector came in handy. There are basically two ways to this system: (a) Open and (b) selective tendering.

Open tendering is open to all construction firms within the catchment of the construction firms on offer (from those on the approved list of firms, the government's own classification is shown as in table 1.1). All major central and local government and public (parastatals) construction contracts save for small routine and general maintenance contracts are by regulation required to go through open tendering through the Zambia National Tender Board. The theoretic advantage with open tendering is that it offers new construction firms an opportunity to win contracts. On the other hand, selective tendering as the name implies is only open to a few chosen construction firms, normally chosen on the basis of their past work or reputation. This, therefore, means that new and unproved contractors have no chance to bid

for this type of tender. Selective tendering is normally preferred by private clients because it saves on time taken to scrutinise the tender documents. Chakwe (1983, p.339) however, has rightly argued that both tendering procedures outlined above are not conducive to the small scale and informal construction firms. He argues that the contractual demands tend to be complex to the small and informal construction firm, with limited expertise and understanding of the contract, even when the project involved is simple and small. The meticulous detail and bureaucratic processes involved in these formal construction contracts entails the use of many resources at pre-contract stage, which increases the final cost of buildings and other construction end-products (Edmonds and Miles, 1984, p.22-23).

On major construction contracts and sites, there are normally more that one consultant and contractor. This is because major construction contracts tend to be very larger and complex, that no one consultant or contractor could be able to carry out the work alone. In this case the main consultant, for example the Architect, would subcontract work to Electric Engineers, Service Engineers, Structural Engineers, Quantity Surveyors and so on depending on the scale and nature of the contract, and so also would the main contractor sub-contract his work to specialist sub-contractors for work such as joinery, glazing, lifts, and so on. Sub-contracting thus gives an opportunity to small scale contractors to work on major construction works, which they would not otherwise do. For example, informal sector welders are often seen working on formal construction sites, on a sub-contracting basis. Equally active are the informal sector construction suppliers of aggregate, building and river sand in supplying formal and informal construction sites with their products.

Once the tendering procedure is over, most construction contracts will be based on the Zambia Institute of Architects (ZIA) or Engineers Institute of Zambia (EIZ) contractual and procurement system, both of which can be traced to the British [Joint Contracts Tribunal] JCT. 63 (1971 amendment) and the G.C./works/1 (Fewings, 1991, p. 16). As is to be expected, the informal sector construction contracts with individuals tend to be informally drawn, and more often than not, the binding "contract" is only verbal between the parties, save for those with the government or the formal private sector.

1.8.0 Field survey

The field data was gathered using structured survey interviews, with possible responses given in a form of multiple choice, to reduce the rate of non responses and time taken in conducting the interview. The survey document (questions) was deliberately framed in a clear, unambiguous manner and with few technical terms, with the intention that respondents who were found to be very busy or away from station, could be left with the document to fill in, in their own time.

However, interviewing was always preferred to the questionnaire form, as it always accorded the researcher the opportunity to record the respondents unsolicited answers. The other disadvantage with leaving the survey document with the respondents was that it required the researcher to make a second visit in order to collect it, and many a time two or three visits had to be made before the document was answered. With most construction firms dotted around the periphery of the three cities under study and without any research assistants, revisiting one or two firms greatly increased the travel cost and time. Subsequently, the practice of leaving the survey questions to be filled by the respondents had to be abandoned during the pilot survey stage. A copy of the survey questions is attached as appendices at the end of this thesis.

1.8.1 Sampling procedure for survey respondents

In the foregoing sub-sections, we emphasised the need to make generalisations out of our study to the rest of Zambia, based on our observations from the three (sample) cities. The first prerequisite in meeting that goal is ensuring that the sample chosen is truly representative of the total population or the general universe. This process should also involve the different strata of respondents, as would be found in the general universe. For example, we know that the construction industry in Sub-Sahara Africa and Zambia in particular comprises of two very distinct forms of contractors, namely the formal and informal sectors, which can be further subdivided into large, medium and small scale (see above). In this connection, therefore, it is imperative that our sample respondents be representative of this stratification in the general universe. To ignore this general rule, would be to offer our study to criticisms of the wrong level of analysis; where information collected at one level of abstraction is used for another level with the basic assumption that this holds.

Having stratified the working population, the initial intention was simply to randomly sample the respondents from the different strata, using the register at the Government Buildings Department as our working universe. In this way each construction firm in the three cities had an equal chance of be picked as one of our cases and thus avoided biased selection of respondents or cases. It should be noted, however, that, in the field, this proved difficult for reasons explained later under 1.8.3 Pilot survey, and thus we used the snowball sampling method.

The snow ball sampling method is based on the principle that the researcher builds on his sample size, having interviewed earlier respondents with the characteristics sought by the researcher, through introduction to their colleagues or business associates [as was the case in our field survey] (Baker, 1994, p. 165). Mindful of the need to maintain the stratification of construction firms at different levels, the researcher made sure that the chosen strata was kept (see table 1.2).

TABLE 1.2 Distribution of survey respondents by sector and location

CITY	Contractors	Consultants	Manufacturers	Suppliers	TOTALS
Lusaka	21	24	8	8	**61**
Kitwe	22	8	11	16	**57**
Ndola	12	6	5	6	**29**
TOTALS	**55**	**38**	**24**	**30**	**147**

Source: Mashamba 195/6 survey data

TABLE 1.3 Stratification of survey respondents

Formal Sector construction firms	Informal sector
Large construction Firms **GV Category** **>500 workers** No. of respondents in survey **5**	
Medium sized construction firms **GII to GIV Category** **50-499 workers** No. of respondents **11**	
Small scale construction firms **GM to GI Category** 1-49 workers No. of respondents **84**	**Small scale Informal sector construction "firms" GM Category** No. of respondents in survey **47**
Totals **100**	**47**

NB. For explanation of categories see table 1.1

Source: Field data and data from table 1.1

To supplement our responses from the survey questions, some respondents were picked by the researcher based on their working expertise to give their own views in a unstructured manner. These were chosen using the expert choice sampling method which is a scientific but subjective sampling technique in which the researcher uses his or her expert/ professional judgement in picking those individuals in society he/she considers representative experts on the subject matter (Baker, 1994, p.163).

Among those picked for these in-depth and unstructured interviews, were Mrs Mwanza, the Assistance Director of Housing,- Kitwe City Council; Mr. Sonny Mulenga, President,

Surveyors Institute of Zambia;[7] Vinay Naik, Prominent Kitwe businessman and owner of Woodcrafters Limited; Frank Chileshe, Kitwe Architect; Mr Jere, Director of Water and Sewerage Company in Kitwe; Dr. Khonje, Commissioner of Town and Country Planning (Chairman of the Zambia Housing Committee); Dr. J. Lungu, Lecturer in Land Economics (Copperbelt University) on the new land bill; and various other prominent businessmen in Zambia. Most of these interviews were conducted at the business forum "The Zambian Industry In Decline" organised by the Zambia Association of Chambers of Commerce and Industry (ZACCI) and the Zambia Association of Manufacturers (ZAM) at the New Savoy Hotel in Ndola on the 12th of January 1996.

1.8.2 Pilot survey

Prior to conducting the main survey in this study, a pilot survey was conducted in the three chosen cities between the 17th of October and the 1st of November 1995. The main reason in conducting this pilot survey was to test the suitability of questions and form and manner of conducting the survey.

A list of all contractors, consultants and manufacturers/suppliers registered with the Ministry of Works and Supply, Buildings Department was obtained (477 in all), from which a sample of 30 contractors, consultants, manufacturers and suppliers/traders was chosen, representing 10 from each of the three cities. Unfortunately, only the postal address is shown on this list as the contact address, meaning that the intended respondents could only be contacted by post, except for the few for which the researcher was able to locate their business premises (13 in total).

Two weeks after posting the self introductory letter, a copy of the survey questions, and a self addressed envelope, there was no response from any of those sent the letters (17 in all, although 3 did respond almost towards the end of the field trip), hence the need to change the survey strategy in the field, from random sampling to a snowball sampling method. The snowball sampling method was based on the 13 respondents that answered the pilot survey questions and a number of known construction consultants introducing their business associates and colleagues in the other sectors, i.e., contractors and materials suppliers.

[7]Mr Sonny Mulenga the then President of the Surveyors Institute of Zambia and a colleague in the Housing Policy Committee is now the Hon. Minister for Lusaka Province.

1.8.3 Research limitations and problems

The major problem encountered during the course of the field work was the reluctance by most parastatal companies in responding to the survey questions, mainly because most of them were lined up for privatisation and were, therefore, not allowed to divulge company information to the public. Most of them did ultimately respond on condition that the information given would not be made public until after the companies had been sold or that the information was not to be attributable to the responding officers.

The second problem was one concerning Asian businesses. At the time the field work was conducted, there had been some racial tension between Asians and blacks. This was following some allegation in the press that some Asian businessmen were involved in ritual killings of black Zambians for human parts for use in magic. This racial tension finally culminated in violent riots the Southern Province, in which millions of dollars worth of Asian property was destroyed. Although these riots were mainly in the Southern Province of Zambia, especially in Livingstone, there was a noticeable reluctance and fear by most Asians businessmen in the three cities to talk about their businesses, let alone the effects of the Structural Adjustment Programme and the Enabling Shelter Strategy on their businesses.

To a lesser extent, there was also a lack of understanding of academic research among most respondents who, for one reason or the other, were sceptical of where their responses would end. This scepticism was not only among the less educated respondents but also the elite in society who, by virtue of their job positions, where expected to toe party and government lines when they had their own opposing view.

The other problem related to logistics, although as already mentioned there were very few of the intended respondents in the telephone directory, even contacting these proved very difficult as most of the time the phones were not working. The telephone company, the Zambia Telecommunications Corporation (ZAMTEL), blamed this situation on vandals who were stealing their cables for resale and the constant lightning that accompanies the rainy season. As a result, most of the time was spent on making appointments and visiting respondents who were either too busy at the time of the visit or away on business, a situation which could have easily have been avoided had the phones been working.

The Zambia Postal Services Corporation did not help matters either. For example, the survey document from the Ndola City Council took 6 weeks to arrive in Kitwe, yet Ndola is only 59 kilometres away. Three other survey documents were never received, although the respondents claim to have posted the documents using the same self addressed envelopes which were given to them.

Another major problem that was faced in the field related to the bureaucracy involved in collecting and releasing vital information by most Government related agencies. For example, efforts to obtain detailed information on the number of houses sold by the three city councils, either on cash sale or credit, was not available from any of the three councils.

1.9.0 Data analysis

The survey data compiled from our survey questions were coded on excel, a spread sheet, and processed using Minitab version 9.2, a Windows statistical analysis package. But as already explained, our study relied on a number of data sources, hence the processed quantitative data from our software package had to be analysed and interpreted against the other data sources using qualitative analytical methods.

1.10.0 Summary

The main aim of this chapter was to introduce and give a brief background to the research project on which we are about to embank, and also state the aims and objectives of the research study. We also explained the research methodology adopted and the reasons and circumstances that led to these choices, given the environment on the ground. In chapter two, we set out to contextualise our chosen research study in the broad literature available.

2.0.0 CHAPTER TWO: LITERATURE REVIEW

2.1.0. Introduction

Having set the study aims and objectives in the last chapter, let us now set the literature context under which our research study falls. The shelter and development paradigm within the context of the construction industry has taken different turns and twists in the last four decades[1]. It first took international prominence in 1972, with the Vancouver Conference and has constantly undergone theoretical and practical changes since then. The latest global changes are contained under Habitat II (UNCHS, 1996).

It must be stressed, however, that Habitat II in itself did not introduce new strategies nor policy changes to shelter and development, as earlier defined under the Global Shelter Strategy. All it did was to reaffirm, consolidate and integrate previous international and isolated conference resolutions containing enabling shelter and development strategies. The main international conference resolutions that have now been integrated into the shelter, construction industry and development paradigm are the Fourth World Conference on Women (Beijing, 1995), the World Summit for Social Development (Copenhagen, 1995), the International Conference on Population and Development (Cairo, 1994), the World Conference for Human Rights (Vienna, 1993) and the United Nations Conference on Environment and Development (Rio de Janeiro, 1992) (UNCHS, 1996, p.227; UNDP, 1996). By integrating all these international conferences, Habitat II thus consolidates shelter with economic, social and environmental development. It is now our intention in this chapter to trace the historical and theoretical reasoning behind this global and integrated sectoral approach of tackling shelter and development issues.

2.2.0 Contemporary Third World development problems

Third world problems are very wide and complex. However, for the purpose of this study, we shall restrict ourselves to the construction industry, shelter and development issues. We are, nevertheless, aware of the fact that other apparently unrelated Third World problems ultimately have a bearing on shelter and development issues. The root cause of most Third World problems, in which Sub-Saharan Africa seems to be leading, stem from a combination of high population growth rates and decreasing national incomes. The high rate of urbanisation in the Third World has also meant that urban areas have taken the brunt of these shelter and unemployment problems. For instance, whereas there were only 12 cities with populations over 10 million people in 1992, this figure is expected to rise to 21 such cities by the year 2000, with 18 of them in the Third World (The Courier, Jan.-Feb., 1992, p. 49; UNCHS, 1996, p. 11-15).

Although the problems of rapid urbanisation are still well appreciated, there is now a growing recognition that Third World urbanisation presents its own unique economic contributions to the

[1] At the time, it was referred to as 'the housing and development paradigm'.

region's battered economies. The World Bank estimates that up to 80% of GNP in the Third World is being produced in these same urban areas (UNCHS, 1996, p. 24-28; The Courier No. 131, 1992, p. 49). The World Bank and the United Nations further argue that Third World urbanisation creates large markets for agricultural produce from the rural areas, hence stimulating rural agriculture (The Courier, Jan.-Feb., 1992, pp. 49-51). This thesis in no way supports rapid Third World urbanisation per se, but aims at tapping the positive aspects of urbanisation, whilst trying to solve its associated problems of transportation congestion, housing shortages and squatting, and urban pollution (UNCHS, 1996, p. 418-424).

Decreasing national income and the corresponding increase in foreign debt has thus meant that, increasingly, less investment is going into improving, let alone maintaining, the basic infrastructure in the face of massive urban population increase. With the public formal services unable to cope due to reduced Government spending, the private (and mainly informal) sector have thus become the key providers of urban services. This phenomenon has given impetus to the Neo-Liberalist thesis that the private sector (and especially the informal sector) can do much more, given the necessary Government backing and enabling business environment. Bearing in mind the indebtedness of most of these Sub-Saharan countries, the current global trend which is basically pro-private sector and anti- increased public spending, finds fertile ground in most of these countries.

It is important to mention at this juncture that both the Structural Adjustment Programme and the Enabling Shelter Strategy advocate a multi-faceted approach in tackling Third World problems of unemployment, inflation, reduced incomes, and the housing and debt crisis (United Nations[Woodfield], 1989; Tipple, 1994b; World Bank, 1983; 1993a; 1993).

2.2.1 Third World debt crisis

The Third World debt crisis is a widely debated subject. It is, therefore, not the intention of this study to repeat the debate here. However, it is important that we contextualise the Sub-Saharan Africa debt crisis and relate it to the shelter problems faced by most countries and also relate the role of the International Financial Institutions (IFI) in trying to solve these problems. The Structural Adjustment Programme was initiated as a direct response to the debt crisis that hit most Third World countries in general, but especially those of Latin America and Sub-Saharan Africa. The origin of this debt can be traced to the 1970s, when oil prices rapidly increased amid low prices for most primary materials, which these countries were exporting (see debt-to-export ratio in table 2.1). So to balance their accounts, most Sub-Saharan countries resorted to excess borrowing from both commercial banks and the IFI (Todaro 1994, p. 461-2). Sub-Saharan Africa's debt is smaller than most other regions in the World. But what makes its debt a peculiar

problem is that, whilst the region's debt is growing quickly, its capacity to service the debt is diminishing more quickly. This is well illustrated in the table below which shows, for example, that between 1975 and 1993 the region's outstanding debt grew from $14.9 billion to $137.4 billion, an increase of more than 800% (see table 2.1). At about the same time its share of debt-to-service ratio[2] grew from $14.4 billion (in 1980) to $24.6 billion in 1993. With most of their resources committed to debt serving and repayment, most Sub-Saharan countries, therefore, resorted to deficit financing with the concomitant results of high inflation and debt perpetuation[3] (Sparr, 1994).

Table 2.1 Growth of African indebtedness

	1975	1980	1985	1990	1993
External debt (billion of dollars)	14.9	55.6	64.7	126.1	137.4
Debt-service payments (billion of dollars)	14.9	55.6	64.7	126.1	137.4
Debt-to-Export ratio (percent)	N/A	92.5	189.0	234.9	219.6
Debt-service ratio (percent of exports)	N/A	14.4	27.6	25.5	24.6
Debt-to-GDP ratio (percent)	N/A	28.3	46.6	62.2	57.4

Source: Todaro, 1994, p. 460

2.2.2.1 The role of the International Financial Institutions

The two main players in international financing: the World Bank and the International Monetary Fund (IMF) are both products of the Bretton Woods conference of 1944 (the "Bretton Woods twins"). Although these two financial institutions have different specific aims and objectives, there were designed to complement each other on matters of financial and monetary aid to member countries. The IMF is now more concerned with stabilisation polices, whereas the World Bank is concerned with the Structural Adjustment Programme (Sinha, 1994, p. 558). The "Bretton Woods twins" were created with the initial purpose of mobilising international capital, both from private institutions and member country contributions for rebuilding the ravaged countries after the Second World War. The basic principle of operation is that the share capital in these two institutions is structured such that any risk or loss is shared among its member countries, in proportions to their shares. Membership to both institutions is open to all members

[2] Ratio of external debt to gross domestic product (GNP)
[3] Refers to a situation where a country borrows to service past debts.

of the UN, although a country has to be a member of the IMF before becoming a member of the World Bank (The World Bank, 1976, pp. 3-4).
Having successfully helped the developed countries rebuild their countries after the destruction of the second World War, the focus of these two institutions is now on using their expertise and experience in helping the Third World countries attain similar status. In helping member countries, it must be emphasised that the two institutions operate more or less like private banks; a member country intending to borrow must provide some form of assurance that the loan will be repaid. However, unlike private banks, "the Bretton Woods twins" main focus of operation is on budget financing and developmental assistance to member countries.

Another striking feature of these two institutions, beginning in the 1980's, has been the variable interest rate loans they give, as against the fixed interest loans of the past. This development has been necessitated by the increasing role of mobilised private capital from the commercial banks and other private financial institutions (Todaro, 1994, p. 461-2; Nowzad, 1982, p. 166). This means that not only is the nominal debt for Third World countries increasing, but the real cost has increased considerably, due to fluctuations on the global financial markets. For instance, between 1974 and 1982 alone, Nowzad cites interest rate rises of about 250% (from 7% to 17%) on the international capital markets.

2.3.0. The Structural Adjustment Programme (SAP)

The term structural adjustment first gained world prominence in April, 1980, when the World Bank gave a $200 million loan to Turkey, with conditionalities that were meant to support structural reforms in the Turkish economy. The reform structures agreed between the Turkish Government and the World Bank were mainly focused in the area of development policy and economic structures, designed to sustain the Turkish economy in the short and long terms (Reed, 1992, p.2). After this record signing, most other Third World countries followed the Turkish example and signed similar loan agreements with the World Bank and the IMF.

What made the advent of the Structural Adjustment lending so different from previous lending agreements of the World Bank and its affiliate the IMF, was the emphasis that was placed on the strict adherence to the loan condition clauses (adjustment conditionalities). With the changing nature of World economic problems: from basic unemployment and inflation to economic stagnation it became almost inevitable that classical Keynesian economics had to be replaced with a more appropriate economic theory of addressing the new problem. Classical Keynesian economics had basically been about solving the aggregate unemployment and inflation problem through the manipulation of the Government budget (spending; monetary policy) and taxes (fiscal policy). Under the Keynesian economic model, unemployment was seen as a direct result of a

deficiency of aggregate demand, and hence the prognosis that by increasing aggregate demand (by way of increasing total Government spending) and lowering taxes to induce private spending, unemployment would be checked. If, on the other hand, there was high inflation (high aggregate demand compared to aggregate supply) Government would reduce its total budget (spending) and raise taxes to curtail aggregate demand and thus reduce inflation. Given the role of Government in manipulating monetary and fiscal policy under this regime, we can safely say that this model relied largely on Government intervention in the market for its success.

Today, however, our economic problems have somewhat changed, there is not merely unemployment or inflation as during the great depression of the 1930's, today's economic problems combine both unemployment and (structural and demand) inflation coupled with the debt crisis (for most Third World countries), rendering the Keynesian model irrelevant (Todaro, 1977, pp. 6-12). The perceived failure of the Keynesian model to solve contemporary economic problems thus led to the rise of a new economic model called Neo-Liberalism. Neo-Liberalist economists view national economic problems both in the developed and Third World countries as arising mainly from internal and external rigidities in these countries. The rigidities are said to be found in the institutional and structural arrangements of the country's economies, hence the usage of the term Structural Adjustment when addressing these "rigidities."

Looking at the structural adjustment changes proposed by the World Bank and the IMF in their adjustment lending agreements to the Third World, it would be argued that they have identified the following as being the main "rigidities:" protectionalist tendencies, active participation of Government in the market, and deficit budgeting. Like Neo-classical economics, the structural adjustment strategy argues that public sector spending is largely responsible for rising budget deficits, thence the rising debt in most Third World countries (Sinha, 1994, p. 558). To remedy this situation, Neo-liberalism advocates limiting Government participation in the economy to the mere creation of the so, called, "enabling environment" and further advocates the promotion of market forces in determining prices and resource allocation.

Whereas traditional classical and Neo-classic economists like Adam Smith, Alfred Marshall, and Stuart Mill were the protagonists of market forces, they were mindful of the limitations of market forces in social and moral interests of society. Neo-Liberalists on the other hand seem to believe that social and moral issues could be addressed by the market as well. At least that seemed to be the position until the United Nations Children's Fund (UNICEF) in 1987 presented their critical report "*Adjustment with a human face*" (Cornia *et al*, 1987) on the negative effects of structural adjustment on children, women and the vulnerable groups in countries undergoing structural adjustment. Since then, the World Bank and the IMF have included the Programme of Action to

Mitigating the Social Costs of Structural Adjustment (PAMSCAD) in their adjustment programmes. These social action programmes are, however, considered outside the realms of central Government and are therefore, left to the Non Governmental Organisations (NGO's). We will leave this discussion for now until we come to sub-heading 2.6.4: Community enablement.

There can be no doubt at the political and socio-economic consequences that structural adjustment has brought to those countries that have "opted" to implement the programme, as countless examples from the affected countries show, among them the Zambian food riots of December, 1986. The fear for social and political backlash when implementing structural adjustment has, therefore, always tend to sway Governments from implementing them in part or in full, hence the insistence by the World Bank and the IMF on the conditionalities clauses.

2.3.1. Adjustment conditionalities

In the main there are six standard adjustment conditionalities to which a country intending to borrow from the "Bretton-Woods twins" will be expected to agree. These conditionalities are best summaries by Reed[4] (1992, pp. 26-27) as follows;

> **1. TRADE POLICY-** Adopting a competitive real exchange rate and lifting export restrictions to encourage exports: reducing quantitative restrictions on imports, and cutting tariffs to strengthen the international competitiveness of domestic industry.
> **2. FISCAL POLICY-** Reducing and eliminating fiscal deficits by contracting public expenditure; increasing prices in the public sector to cover costs and raise revenues; reforming the tax system to improve the efficiency of raising revenue; and creating new sources of revenue.
> **3. PUBLIC ENTERPRISE POLICY-** Cutting public investment and shifting resources to infrastructure and social sectors; reforming public enterprise to improve efficiency and profitability; closing or privatising unprofitable public enterprise to reduce the government fiscal burden.
> **4. FINANCIAL SECTOR POLICY-** Restructuring institutions to facilitate resource mobilisation; improving regulatory framework to restore public confidence; relaxing interest rates ceilings and reserve requirements; and diminishing the role of credit allocation to provide incentives for efficient use of resources.
> **5. INDUSTRIAL POLICY-** Reducing protection to make the industrial sector more competitive internationally; liberalising price controls to improve resource allocation; providing investment incentives for producing domestic value added; devaluing the currency to develop an export-oriented strategy.
> **6. AGRICULTURAL POLICY-** Adjusting exchange rates and removing industrial protection to eliminate the bias against agriculture; liberalising agriculture prices; funding agriculture research and improving infrastructure;

[4]Original sourced from the World Bank: Problems and issues in Structural Adjustment, 1990, pp. 40-42.

deregulating agriculture trade to smoothen the circulation of agriculture inputs and products.

Looking through the above six conditionalities of structural adjustment, it is very clear that the term "Structural Adjustment" is somewhat a misname in that the changes being proposed are not only structural in nature but monetary as well, i.e., devaluation and exchange rates. There is also a risk of confusing the original structuralist economists with the advocates of Structural Adjustment Programmes. The original Structuralist economists of Latin America was a school of thought that opposed the IMF's 1950's explanation of inflation through monetarism as against structuralism and has little or no bearing on today's Structural Adjustment Programme (Little, 1982). Today however, both the Structural Adjustment Programme and Neo-liberalism implicitly embrace both monetarism and structuralism in their modus operandi.

In view of the world-wide criticism of the World Bank and the IMF on their role in structural adjustment in Third World countries, it is important to state from the outset that not all Structural Adjustment Programmes are initiated and sponsored by the two Financial Institutions. Some Third World countries have implemented their own brand of structural adjustment, among them Mexico, Thailand and Burkina Faso. Burkina Faso was one of the first countries in Sub-Saharan Africa (back in 1983 under Captain Thomas Sankara) to implement structural adjustment, and its results were widely reported as being successful, enticing other African countries to follow suit. The Burkina Faso government froze civil service wages at the 1982 level, reduced housing allowances by 25%, banned the importation of luxury cars by Government officials and also banned fertiliser subsidy. The net result of the above measures was an average growth rate of 5.8% in real Gross Domestic Product (GDP) between 1983-1989, compared to 3.8% recorded between 1970-1982, which was also the average for the rest of Sub-Saharan Africa (Savadogo and Wetta, 1992, pp. 61).

From the other countries that followed suit, Ghana, Uganda and Mauritius within the Sub-Saharan continent, also recorded positive growth rates after implementing the World Bank and IMF brand of structural adjustment programme. Independent research, however, like that of OXFAM, have refuted such claims by the World Bank and the IMF as being "full of holes and a blend of half truths" (Swift, 1994, p. 6). Despite such negative reports on the effects on structural adjustment, Third World countries, especially those in Sub-Saharan Africa continue to subject themselves to structural adjustment loans and their associated conditionalities.

Embedded within the structural adjustment theory, is the important role placed on private international capital in the postulated amelioration of poverty and the debt crisis in Third World countries (UNDP, 1996). According to the Nurkse's theory of development, poor countries remain

poor because they are poor and need large injections of foreign capital to get out of the poverty trap. It argues that Third World countries have a low savings to national income ratio, hence a low rate of capital accumulation with the resultant low productivity in the national economy. If this prognosis is right, then there is every justification for Third World countries to borrow from International Financial Institutions and to open up their economies to foreign multi-nationals to fill the capital short fall. The Far-East Asian economic miracle of the 1980's, using Western money, may be a valid case in point to validity this theory (World Bank, 1993b). The Neo-Marxist school, however, is not convinced about the need for injecting international capital into Third World economies. They argue that this trend only goes to perpetuate the dependence syndrome of Third World countries on the developed countries (Amin, 1976; see also Mamdani, 1991).

2.3.2 Structural adjustment, shelter, and the construction industry

How then does this Neo-Liberalist development theory affect shelter provision and the construction industry? We have already seen that the key objective of the Structural Adjustment Programme is in restoring economic growth and sustaining long-term national development. Among other things, it seeks to restore economic growth and sustain long-term development in a nation, achieve positive balance of payments, generate employment opportunities, increase national income, increase fixed capital formation, and improve shelter provision (UNCHS, 1996, 7). The above attributes have all been highly associated with the construction industry (see 2.4.0). Consequently, the protagonist of the Structural Adjustment Programme have argued that investment in shelter will stimulate the construction industry, which in turn contributes to national development (Woodfield, 1989, p. 26-27). Although the Structural Adjustment Programme advocates for reduced government expenditure, it seeks to promote private sector investment in the construction industry to take the place of a hitherto large percentage share of public sector investment.

As a consequence of the six conditionalities of the Structural Adjustment Programme (on page 34-5) and in line with the Neo-Liberalist economic philosophy, the housing sector and the construction industry in general are affected as follows (summarised from Van Huyck, 1987, p. 355-358; UNCHS, 1996, 116-120; World Bank, 1993a):

1. State housing allowances and subsidies have to be reduced and eventually eliminated, but in the meantime they should be target-oriented.
2. Public services like water, electricity, and sewerage should be priced at market rates and housing policy measures like rent control done away with, not only to recover costs but to increase the revenue base of the Government.
3. Loss-making construction and housing-related public-controlled companies should be sold off or privatised.

4. Construction materials companies previously enjoying foreign trade protection should lose that privilege, in a measure meant to promote efficiency and lower costs in the housing market.
5. The role of the Government in the housing market and construction industry should be reduced: from direct participation to operating the regulatory framework and easing the supply markets (enabling). This entails creating an enabling environment for private sector investment in the housing market.

Given the reduced role of Government in both the housing sector and the construction industry under the Structural Adjustment Programme, it then becomes very clear why private sector investment both local and foreign is pivotal to the success of this programme. In recognition of this fact, the protagonist of this thesis place an important role on the part of the host Government to put in place rules and regulations that will be seen to facilitate, promote and protect the private sector. The strategy of creating this environment in the housing sector, in which the public and more especially the private sector are able to carry out their intended business objectives, is what has become known as the "Enabling Shelter Strategy."

2.4.0. The construction industry in Sub-Saharan Africa and its role in national development

Before we go to discuss the relation between the Enabling Shelter Strategy in great detail, lets us first give a brief profile of the structure and the role of the construction industry in national development in Sub-Saharan Africa. Studies by various researchers show that there is a strong relation between shelter and the construction industry on one hand and the level of national development on the other (Edmonds and Miles, 1984, p. 8; Rodwin, 1987; Meen, 1995). Edmonds and Miles (1984, p.1-3) and UNCHS (1996, p. 224) have further argued that the importance of the construction industry in any country is not only in terms of the products it produces, but in the amount of public investment (50-80%) it consumes, its high share of Gross Fixed Capital Formation (over 50%) and the percentage of workers engaged in it. Klaassen *et al* (1987) and Spence *et al* (1993) have argued that investment in housing is a major catalyst in stimulating the construction industry and ensuring sustained long-term development. Their thesis is that increased housing spending leads to increased building of housing, consequently creating more job opportunities within and outside the direct construction industry. They go on to postulate that, since spending on housing normally requires huge investments, this encourages aggregate savings and hence reduces disposable income leading to reduced inflation.

Edmonds and Miles (1984, p. 5) also found that, the Value Added by the Construction industry (VAC) varies from country to country depending on Gross National Product (GNP). They found that the percentage value added in construction is on average higher for countries with a higher GNP/capita than those with a lower GNP/capita (see table 2.2). Table 2.2 also shows that Value added as a percentage of Gross Domestic Product (GDP), Gross Fixed Capital Formation (GFCF)

per capita, investment per workplace and employment per 1,000 population all increase with an increase in a country's Gross National Product. This explains the low percentage contribution of the construction industry to the national economy in Sub-Saharan African as compared to the percentage contribution in developed countries.

Table 2.2 Characteristics of the construction industry

GNP per capita ($)	Type	Number of countries	VAC per capita ($)	VAC as % of GDP	GFCF per capita ($)	Investment per workplace ($)	Employment per 1,000
<500	A	30	13	4.66	19.5	6,518	3.6
500-999	B	23	44	5.62	99.7	10,974	9.1
1000-1999	C	22	87	6.08	187.9	15,437	15.3
2000-3999	D	15	239	7.49	490.6	23,571	25.2
4000-8999	E	14	466	7.36	861.2	33,787	25.4
>9000	F	12	919	7.80	1,672.1	57,489	26.9

Source: Edmonds and Miles, 1984, p. 7

The structure of the construction industry in Sub-Saharan Africa is very varied and tends to vary from country to country. In general terms, however, the industry can be divided into formal and informal sectors

(a) Formal sector: Comprising mostly large international and local public and private construction companies working on large projects. Like the formal construction sector in Zambia (in chapter one) which is developed on the model of its former colonial master: Britain, the same can be said for most other countries in Sub-Saharan Africa. The formal construction sector tends to cover projects in all areas of the construction i.e. industrial plant, buildings (including housing), roads and general infrastructure. Because of the huge investment needed to buy plant and machinery, especially for civil engineering projects, most firms in this sub-sector tended to be public sector or private limited firms. Grimes (1976, p. 55) has, however, argued that the tendency to use capital-intensive techniques was largely because of the overvalued exchange rates, subsidised interest rates and other distortions in these economies.

(b) Informal sector: Comprising mostly small sized and family construction companies working with both the formal and mostly informal sector. As was the case in Zambia (see chapter one), the informal sector elsewhere in Sub-Saharan Africa also tends to have low overheads which gives the sector advantages over the formal construction sector. For example, Korboe (1993) showed how the informal construction sector in Ghana was able to build a "bedsitter" at one sixth the cost of building the same unit by the formal construction sector.

In economic terms, however, relationships in the construction market are classified under (1) Demand and (2) supply

2.4.1 Construction demand

Demand for construction goods and services can be grouped into two main classes of
(a) Civil engineering works: of which infrastructure (provision and repairs) is the main component i.e. roads works, water and electricity reticulation, sewerage and so on. Not surprising, therefore, civil engineering works have traditionally been undertaken by the public sector. But with the promotion of the private sector in the provision of public services, under the Structural Adjustment Programme, this has resulted in the entry of the private sector in this area.
(b) Building works: This sector groups all construction works involved in the building of houses, offices, schools, clinics, hospitals, factories, and so on. This is in which the private sector investment has traditionally invested in.

Reduced public sector budgets for capital programmes resulting from the debt crisis and the application of Structural Adjustment policies in most Sub-Saharan African countries has resulted in drastic reduction in construction demand. Private institutions and individuals have also tended to cut back on their spending on construction goods and services as their incomes has equally fallen (UNCHS, 1985, p. 24; UNCHS, 1996, p. 207).

2.4.2 Construction supply

There are four main factors of production on the supply side of the construction industry: (a) construction materials (b) labour (c) capital or machinery and (d) construction finance. Various studies have found that construction materials tend to be the largest single input for most construction works in Sub-Saharan Africa, accounting for over 50% of the total construction cost (Edmonds and Miles, 1984, p. 13; UNCHS, 1985, p. 5; UNCHS, 1996, p. 225). The very high percentage contribution for materials cost is attributed to the high percent of imported construction materials in Sub-Saharan Africa and the rest of the Third World (UNCHS, 1985, p. 13). This will explain attempts by most of these countries in reducing the amount of imported construction materials used.

Construction labour is another very important component on the supply side of the construction market. The construction labour component comprises unskilled, semi-skilled, skilled and professional workers. Large and public construction projects normally tend to require professional manpower of architects, engineers, quantity surveyors, and building surveyors, whereas small and private construction works might not require all these professionals (Edmonds and Miles, 1984, p. 22-32). This is because formal public construction works and finance regulations have strict

laid down procedures for awarding and implementing contracts, which require the services of these professionals. Construction works in the informal (and mainly housing) sector, however, do not follow these procedures and can thus be carried out by less qualified workers. Refer also to the Zambian situation under 1.7.2.

Construction plant or machinery is another expensive component that adds to the total cost of most public construction works in most African countries. This again, is attributed to the expensive and imported plant engaged on large public construction sites. The situation is made worse by the fact that most African governments demand that contractors should own a large stock of construction stock to be eligible to qualify for large government construction contracts (Edmonds and Miles, 1984, p. 32). To counter this, there is now a growing call to substitute the amount of machinery used in these projects with local and cheap labour (Edmonds and Miles, 1984, p. 10; Strassmann and Wells, 1988, p. 4-9). Lastly, for any construction to take place, there must be money (construction finance) available to employ the above construction factors.

2.4.3 The informal sector construction industry

In Sub-Saharan Africa the contribution of the construction industry is less documented and, therefore, less appreciated because most construction activities tend to be in the informal sector (UNCHS, 1985, p. 8). Despite this lack of appreciation, the informal construction industry plays an important role in most Third World countries. Although the informal construction sector has only become more accepted with the advent of SAP and the Enabling Shelter Strategy in most Sub-Saharan countries, this sector has always played a key role in shelter provision for most informal households. For example, in the 1970s the informal construction sector was the main sector in building houses in the squatter upgrading and site and service schemes that took place in these countries, including Zambia (World Bank, 1983; Martin, 1975, Schlyter and Schlyter, 1980).

Similar examples in other Sub-Saharan African countries can be cited. For instance, Moavenzadeh (1987, p.86-87) found that, in Kenya, 60% of GFCF in the shelter market and 16% in the rest of construction market was provided by the informal sector. In Cote d'Ivoire the informal sector accounted for 60% of the workers in the whole of that country's construction industry (Moavenzadeh, 1987, p. 86). In most other Sub-Saharan countries including Zambia, however, such accurate data on the informal construction sector is not available. The advent of SAP in Sub-Saharan Africa has only added to the significant role played by the informal sector of the construction industry, as the formal construction sector (which was largely public owned) is constantly been reduced as a cost saving measure (UNCHS, 1996, p. 116).

The informal sector construction industry has been credited with using less or no imported construction materials, thus saving foreign exchange and promoting locally produced construction materials (UNCHS, 1996, p.225; Moavenzadeh, 1987, p.86). This is so, because the informal construction industry is predominately concerned with building houses for the urban poor. For example, research by Wells (1995, p. 76) in four selected Third World countries, found that there was a high rate of locally produced building materials used in housing construction for both walls and roofing. Wells (1995, p. 76) notes that, the small price difference between traditional (organic) and locally produced building materials in urban areas and the short life of unprocessed organic materials is one factor that encourages the greater use of locally produced materials than traditional materials (see table 2.3 below). Similarly, Klaassen *et al* (1987, 45) went further to show that local and informally supplied construction materials have high labour component in their production and processing, thus enhancing local employment generation (see table 2.4).

Table 2.3 Materials used in some selected urban housing

Material	Bangladesh	Tanzania	Malawi	Ethiopia	Zimbabwe
Walls					
Poles/bamboo/ grass/straw	53	18	1	3.5	N/A
Poles and mud	N/A	45	15	80	5.1
Roofs					
Poles/bamboo/ grass/straw	40	20	34	20	1.5
Iron sheets	40	67	61	77	N/A

Source: Wells (1995, p. 76)

Table 2.4 Source and labour intensity of various construction materials

Materials	Source of materials Place	Source of material (Sector)	Labour intensity in production and processing
Mud and wattle, Sun-dried clay blocks	local	informal	high
Murrain-enforced blocks, Black cotton bricks	local	informal or formal	high
Stones	local	informal or formal	high
Timber	local	informal or formal	high intensive use of skilled labour
Precast concrete panels	local or imported	formal	medium
Cement blocks with a chemical additive	local or imported	formal	low

Source: Klaassen *et al*, 1987, p. 45

Although no recent research has been carried out on the informal sector in Africa, in the mid 1970s it was estimated that a typical African country informal sector employed about 60% of the urban labour force (UNCHS, 1996, p. 90). In recognition of the various problems faced by the informal construction sector, but yet appreciating its valuable contribution to the economies of Third World countries, the UNCHS (1985, p. 29) has suggested the following measures to improve its efficiency;

1. Promoting the formation of organisations and associations within the informal sector and using such organs as the medium of information flow to the sector and, in general, as a mechanism for providing support in requisite areas;
2. Integrating institutional arrangements in the informal construction sector with the overall machinery for planning the construction industry;
3. Strengthening the capacities of existing institutions or associations in the informal construction by offering support in areas such as dissemination of information, training, and basic administration practices;
4. Designating a focal agency to co-ordinate activities in the informal sector and set out broad policy guidelines;
5. Expanding the use of non-conventional approaches in government construction programmes for low-income population.

2.4.4 The construction industry and housing provision

Although house construction and repairs constitutes only a part of the many roles of the construction industry, in the Third World, Moavenzadeh (1987, p. 88) has estimated that 35-40% of construction demand is for housing, 22-27% for non-residential buildings and 35-38% for civil

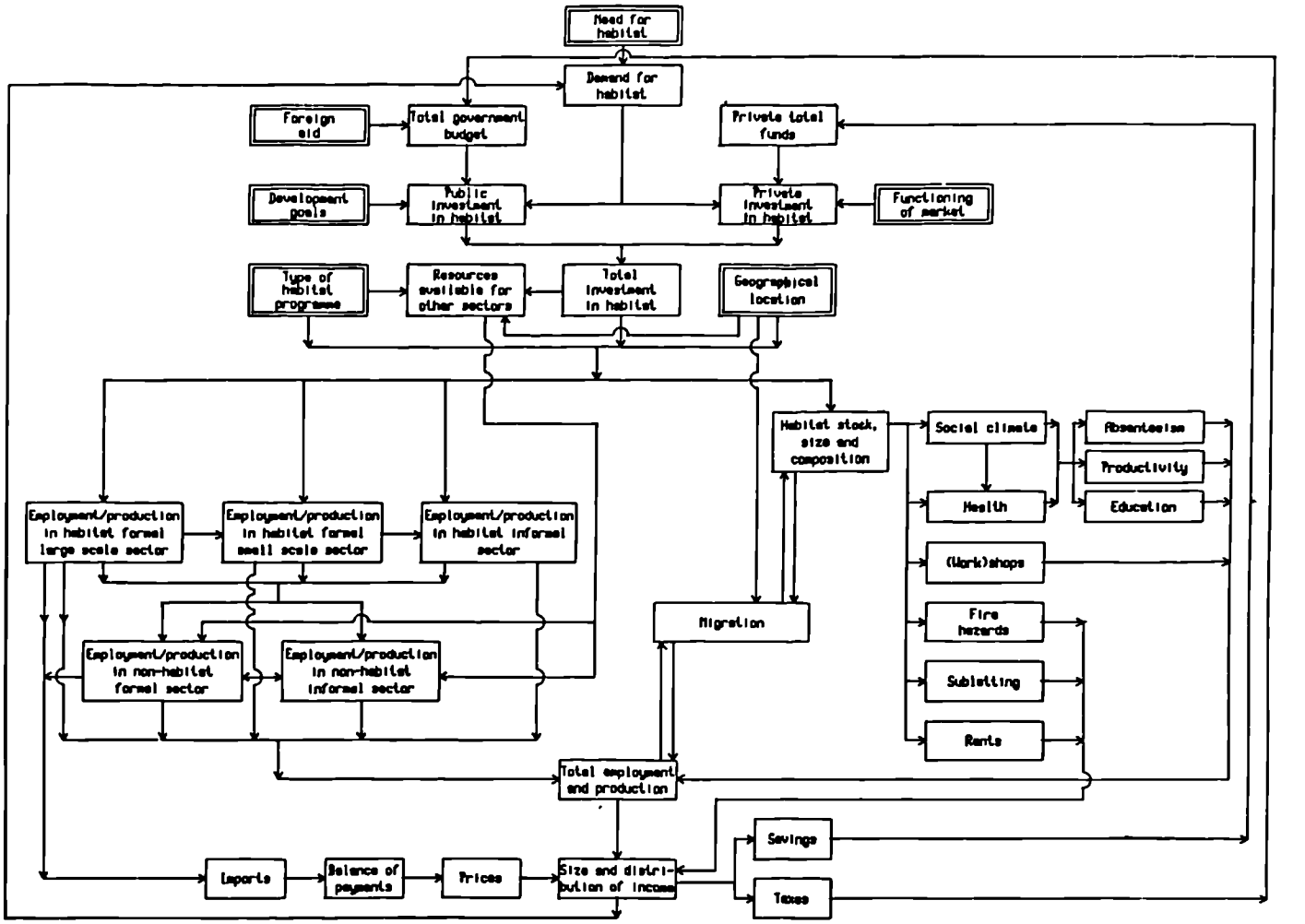
engineering works. With 40% of the most households in the Third World unable to afford a house from the formal sector contractor, the task of proving most housing has thus fallen on the informal construction sector (Moavenzadeh, 1987, p. 87-88). Apart from the inability to pay for housing, most urban poor households in the Third World cannot afford a house in the formal sector because of the scarce of serviced land, inability to get mortgages and the high transport costs to places of employment with the formal sector houses (UNCHS, 1996, p. 207). The continued rise of urban areas in the Third World, especially in Sub-Sahara Africa has also meant that housing demand, be it in the informal sector, continues to key stimulant for informal (housing) construction market. For instance, the UNCHS (1996, p. 195) has estimated that, whereas annual new formal housing in Africa is usually between 2 and 4 units per 1,000 inhabitants, in the informal sector it is likely to be between 15 and 30 units per 1,000 inhabitants. This estimation only goes to demonstrate the pivotal role of the informal sector construction industry in Sub-Sahara Africa.

2.5.0 Housing (Shelter), the construction industry and development paradigms

We have already stated that our research on "the effects of the Structural Adjustment Programme and the Enabling Shelter Strategy on the construction industry (supply-side of the market) and national development in Zambia, falls under the paradigm of "housing[5] and development." The shelter and development paradigm deals with the relationship between shelter policy and provision and their effects on national development. Klaassen *at al* (1987) have best illustrated the national development impacts of housing on the rest of the economy in fig. 2.1 below. In this diagram they have summarised the direct and indirect impacts of investment in housing on the formal and informal employment markets both in the construction industry and other related industries. The diagram further shows the interrelation between the formal and informal shelter companies, and their net effects on local construction supply and prices. Figure 2.1 further shows that macro-economic changes are by and large influenced by economic, social and spatial factors in the shelter sub-market. For example, demand for shelter at the top of the diagram results in both public and private sector investment in shelter, which trigger off reactions or movements in formal and informal construction labour and materials markets. The resultant increase in housing stock ultimately thus has influences in the social and economic welfare of the citizens, through higher productivity at work, better health, higher incomes through rents and subletting and similarly higher taxes for the government.

[5]In the Neo-Liberal policies the term shelter is preferred to housing.

Fig. 2.1 Impacts of shelter investment on the construction industry and national development



Source: Klaassen *et al*, 1987, p. 38

In tracing the historical development of this paradigm in the Sub-Saharan African continent we can see three very distinct housing and development schools of thoughts:

(1.) Social housing and the welfare state;
(2.) Self housing programme;
(3.) Enabling Shelter Strategy.

2.5.1. Social Housing and the welfare state system

Social housing and the welfare state system is the name we shall give to that school of thought that saw the role of housing in national development more in social than economic terms. This school was particularly popular in the 1960's, termed the decolonialisation decade, when most

Sub-Saharan African countries gained their independence. Most of these countries set out interventionist policies meant to uplift the living standards of their people in the shortest possible time. Housing, water, education, among other things, were rightly regarded as basic needs of each and every citizen and the responsibility of satisfying these needs was literally taken up by the newly created Governments themselves. Large public sector construction companies were set up, to fulfil that role. The general national development policies tended to follow what has become known as "redistribution with growth and basic needs" (Burgess *et al*, 1994). The overall objective was to eradicate poverty, inequalities and unemployment, yet at the same time achieve positive economic growth.

Although housing was never explicitly cited as being a vehicle to meet the stated national development objectives, it was implicitly seen as a medium for raising productivity amongst the "well" housed workers and those engaged in the construction industry. Due to the vast numbers of people in need of housing and other construction products, rapid industrialisation of the construction industry was seen as being the key to meeting the set national development targets.

2.5.1.1 Rapid industrialisation

Decades of colonialisation had left the former colonial states heavily dependent on the industrialised nations, for most of their construction goods and services. Colonies were taken to be mere sources of raw materials and markets for finished goods, for the industries and workers in the developed West (Yue-man Yeung, p. 1). However, with the attainment of independence, the new states attempted to reverse this trend by setting up their own industries. The basic objective was to create jobs for the locals and save foreign exchange on imported goods and services. To facilitate this objective, import tariffs were introduced as a measure designed to substitute imports as part of a strategy of import substitution.

Unfortunately the mode of production chosen for these new local industries was basically capital intensive, relying mostly on Western technology, semi-processed raw materials and capital goods. This development has now been criticised by the Neo-Liberalist and other economists for contributing to foreign exchange losses mainly due to payments made to expatriate workers, spares and maintenance costs needed to run these capital intensive industries. The other detrimental effect brought about by these Western-oriented industries was the marginalisation of the local crafts-based industries and their products. Locally produced construction materials like timber door and window frames and bricks, which had thereto been produced by the local domestic industry and craftsmen, were replaced by colonial type metal frames and concrete blocks (Chakwe, 1983, pp. 371-3).

The reliance on Western labour, technology and semi-processed raw materials inevitably meant that, with the collapse of these countries economies, these large public construction industries and companies could not sustain themselves any longer. With foreign exchange generally in short supply and the little that there was going to servicing debts, production capacities went down with the resultant situation of chronic shortages of building materials and longer building times on construction sites (Fewings, 1991). Conventional housing thus became expensive and out of the reach of ordinary urban dwellers so that most opted to build and live in the so-called squatter settlements where they built using traditional methods and materials (Wells, 1993; 1995). This phenomenon was particularly true in the case of Zambia (Mashamba, 1990).

2.5.1.2 High housing standards

Years of colonial rule had also seen a perpetuation of a dual housing system by both the British and French colonial governments. Housing was provided on the basis of race, with the Whites being provided with housing built to colonial standards whereas the locals were provided with mere modifications of their village huts. With the departure of the colonialists the new bureaucrats and the technocrats simply copied the standards that had being reserved for whites and adopted them as minimum housing standards for both public and private housing (Grimes, 1976, p. 41). There was no evaluation of these standards as to their appropriateness to local conditions or factors. High housing and civil engineering standards with their concomitant formal construction practices also effectively eliminated the participation of the indigenous (or informal) contractor or builder in the construction process of these houses and public infrastructure (UNCHS, 1985, p. 18).

It was not until Turner (1972; 1976; 1980) began to research and write on the adverse effects which the setting of high housing standards was having on the national economies that slowly Governments began to relax on high housing standards. The entry of the World Bank on the Third World housing market and its support of Turner's findings on the need to rethink high housing and infrastructure standards added weight to Turner's theories and saw a turn about on this subject. The World Bank actually went further than Turner in its criticism by stating that high housing standards were not only siphoning the little available public resources, but also benefiting only a handful of people (World Bank, 1983, p. 3).

Turner (1972, p. 148) has best summarised the notion that the bureaucrats and the professionals in the Third world had when he writes "the standards the objectors have in mind, however, are not something which can be achieved with available resources but, rather, represent the objectors own notion of what housing ought to be".

2.5.1.3 Housing subsidies and allowances

It will be appreciated that, at the time of independence, very few natives in the former colonies had adequate education, let alone good paying jobs to be able to afford the high standard housing that was being produced mainly by the public sector. Housing allowances and subsidies thus had to be introduced or perpetuated by the Governments to assist the 'urban poor' to foot the housing bill. Unfortunately, it turned out that these housing allowances and subsidies were actually biased towards the middle and high income groups, rather than the low income groups as was the original intention (World Bank, 1983, p. 3). Housing allowances were fixed as a percentage of one's income, so that those with high incomes got more than those with low. With housing subsidies tending to rise in proportion to the value to the house, this was in no way assisting the poor, as both housing allowances and subsidies were certainly benefiting the rich more than the poor.

The other form of Government subsidy to housing was in the form of rent control, whereby Government legislation was enacted to limit the rent payable for certain types of housing. The intention here as well, was to "protect" the poor households from unscrupulous landlords who would otherwise charged very high rents at the time of acute housing shortages. But, as Malpezzi *et al* (1990) and Malpezzi (1994, p. 454) have found, this practice only discouraged more investment in the housing market due to curtailed profits and thus further contributed to the housing crisis.

At the other extreme, Governments actually went to the extent of forming their own consultancies, construction companies and housing finance companies as a way of reducing housing costs. The rationale was that middle men were partly to blame for the high housing costs, due to their excessive profits, and that once they were cut off this would reduce costs. Once again, this was not to be as Government subsidies and trade protection to these state housing companies turned them into mal-administered and inefficient companies, with the consequence of increased costs and erratic supply (Chakwe, 1983, pp. 372-3).

2.5.2 Self-help housing

Continued economic decline, rapid population increase and the continued oil crises in the early 1970's led to a complete rethink on the Third World housing and development paradigm. National incomes from the export of primary goods was not only falling but more and more of this income was going into repaying the increasing foreign debt. As a consequence, less and less money was made available for public services and housing in the Third World. A tendency was slowly growing of moving away from social housing and the welfare state system to some form of cost recovery. The Turner school was not only having a positive impact on Third World housing

policy, but more so on the World Bank urban lending programme. With the World Bank entering the Third World housing market through their urban lending programme which was predominately a pro-Turner approach, low housing standards and the concept of self- help were quickly spread through the Third World (World Bank, 1983).

A notable contribution of the World Bank to Turner's ideas on self-help was the inclusion of economic sustainability within the self-help housing programme. The programme was based on the principle of full cost recovery, designed to sustain long term maintenance and repairs. It was also envisaged that full cost recovery would also ensure that the individual self-help projects were replicated to other residential areas and towns/cities. In the same vein, the programme provided for small scale business plots within the projects, to ensure that local residents had sufficient economic outlets to generate enough incomes for house loan repayments. These business outlets included, among other things, market stands, small scale industries and basic service industry (World Bank, 1983). One of the weakness, however, was that the industries that were created under this programme were never fully integrated with the established formal industry, and hence were never really accepted as part of the national economy.

Turner successfully publicised the self-help housing concept, based on his experiences in Latin America where he had found that the urban poor were already building their own houses with little or no state help. The key to this concept, was the progressive renovation or improvements that the urban poor were constantly making to their houses with the course of time. From these observations, Turner went on to develop the prognosis that housing should be regarded as an activity rather than a commodity or product, and hence its value could not be judged on material quality, but rather in the fulfilment that it brought to its owners (Turner, 1972).

The significance of the self-help housing on Sub-Saharan Africa and its construction industry was that self-help housing relied by and large on the informal house builder (1983). For the first time, the informal contractor was officially recognised for his role in contributing to national development (World Bank, 1984; Martin 1976; Rakodi 1980). In Zambia, for example, formal institutional finance was for the first time made available to households using informal sector contractors, although the practice was never carried through after the upgrading scheme (Martin 1976). Self-help housing also saw the active participation of women in house building alongside their men folk. Whereas in some countries, self-help housing has had the effect of increasing local and traditional construction materials, in Zambia there is very little evidence of that, as most households used modern construction materials (Schlyter and Schlyter, 1979, p. 113-124; Rakodi, 1980, p. 18).

Not all housing scholars and researchers agreed with this self-help housing concept, among the notable ones being Rod Burgess, a Neo-Marxist who has extensively criticised the Turner school. Burgess' line of argument was that the idea of letting the poor build their own housing without Government funding was a capitalist plot to exploit the poor and a negation of government responsibility (Burgess, 1977). More liberal scholars like Marcuse and Tipple have argued against some form of self-help on different lines. Professor Peter Marcuse has argued point by point against conventional self-help housing as advocated by the Turner school. In summary form, Marcuse dismisses the notion that self-help housing can contribute significantly to national economic development and economic redistribution of wealth. He also highlights the failure of regular maintenance and repairs under this programme as one reason why self-help won't work (Marcuse, 1992, pp. 15-22). His other point that self-help housing lowers standards, is an argument that goes against current housing theories. Tipple (1994a, p. 5) on the other hand, criticises the practice of households having to physically build their own houses as been wasteful, in that once the house is built the skills and experience gained in the process are left unexploited.

2.5.2.1 Reduced housing and infrastructure standards

Given the numerous research results that showed that high housing and infrastructure standards were a major factor to raising housing costs, the World Bank urban lending programme of the 1970's was deliberately designed on the basis of low infrastructure and shelter standards. Building on Turner's concept of housing as an activity, it was envisaged that these low infrastructure and shelter standards could be improved on over time, at affordable costs to both Governments and the households. The other advantage of low infrastructure and shelter standards was the fact that small local construction companies could be awarded contracts to undertake their construction (World Bank, 1993, p. 40). Rather than provide the conventional fully serviced plots and finished housing units, the World Bank changed the strategy to providing semi-serviced plots: with shared stand pipes, main road provision only, street lighting, and ablution blocks, depending on whether the area was a site and service or squatter upgraded settlement.

2.5.2.2 Cost recovery and project replication

The inclusion of the principle of full cost recovery in the World Bank's self-help housing programme marked the beginning of the end of social housing and the welfare state system. As already stated, this principle was based on the need to ensure prompt repayment of the World Bank loans, without much recourse to state funds. The second reason was based on the revolving fund system, whereby the same money would be circulated from one housing project to another, within the same town and in between towns. Unfortunately, party politics and the lack of administrative control failed to ensure that the housing loans were repaid on time or repaid at all (Bamberger *et al*, 1982; Keare & Parris, 1982). The host governments thus ended up having to

repay the loans to the World Bank, adding only to the already massive foreign debt, a situation it was designed to avoid in the first place.

2.5.2.3 Squatter up-grading projects

It should be noted that there were two components to self-help housing:
(1) squatter up-grading and
(2) Site and service.
Squatter upgrading schemes involved the provision of basic infrastructure and services to urban low income areas, which were already in existence, albeit not legally recognised by the authorities. The theory was that once these "squatter" settlements were up-graded by way of basic infrastructure and services and housing loans made available to the households, this would give residents a sense of security and hence further encourage them to improve their houses.

As the Zambian case demonstrates, the path to success of this scheme was the cost recovery exercise, and when this failed the whole project failed as well, as there was no long term maintenance and repairs carried out. As a result, within a short time, the up-graded settlements reverted to their previous status, of no piped water, street lighting, surface drainage and garbage collection (Bamberger *et al,* 1982).

2.5.2.4 Site and service schemes

Unlike the squatter upgrading schemes, the Site and service schemes were new creations in their own right, in that they were developed from non-settled areas. In Zambia, for example fully serviced plots were initially provided, before the government introduced semi-serviced plots (basic site and service). In basic site and service, plots were semi-serviced with low basic infrastructure and services, just like in squatter upgrading schemes, except that there were only allocated to residents upon the successful completion of their servicing. They were, however, to suffer the same predicament as the squatter upgrading schemes in slowly degenerating into un-serviced areas for lack of regular maintenance and repairs.

2.6.0 The Enabling Shelter Strategy and its linkages to the construction industry

The failure of the self-help housing programme to eliminate the urban housing crisis and to make a significant contribution to Third World economies, led to the World Bank and the United Nations Commission on Human Settlements (UNCHS) making more radical policy changes to their urban development programmes. The major point of departure was the decision to move away from the sectoral housing programme to a more integrated development policy, of which housing would play a part. In a paper, entitled *Effects of economic conditions on human settlements,* the Centre for Building and Planning of the Department of Economic and Social

Affairs of the United Nations, argued that no significant progress could be attained in the area of shelter without a corresponding increase in the productivity levels. This was a realisation that improvements to shelter could only be brought about by a corresponding increase in people's income and thus general economic welfare. The paper went on to argue that attaining high production levels in the construction industry was a sure way of doing this, as this would bring about a variety and abundance in building materials, reduced housing costs, increased housing provision and increased job opportunities (UNCHS, 1976; World Bank, 1993a, p. 41).

Since the above strategy first caught World attention, when it was presented at the Vancouver Conference in 1976, there has been much consolidation done to the theory by both UNCHS and the World Bank. This new global theory on housing is basically drawn from past experiences and mistakes, as admitted by the World Bank in the paper "Learning by Doing" (World Bank, 1983). The culmination for the search of a more practical shelter policy came with the declaration of 1987, as the International Year of Shelter for the Homeless (IYSH) and Habitat II in June, 1996 in Istanbul, Turkey. In addition, a shelter policy document "Global Shelter Strategy (GSS) was produced, which outlined the mechanisms and instruments required in fulfilling the global goal of shelter for all by the year 2000. The World Bank and UNCHS work very closely together on Third World housing, thence their identical views on how best to solve Third World housing problems viz.; the Enabling Shelter Strategy.

For instance the Department of International Economic and Social Affairs of the United Nations, summaries the main objectives of the Enabling Shelter Strategy as follows;

> to improve urban residential conditions and, in so doing, generate higher levels of capital investment, expand labour-intensive employment opportunities, and generally protect the position of vulnerable groups during periods of economic stabilisation and structural adjustment. Among the main advantages of the proposed approach is the fact that it can be implemented with little recourse to institutional support, public funds or foreign exchange. (The United Nations [Anthony Woodfield], 1989, p. 2)

The above quotation, together with the similarities and references to the structural adjustment conditionalities, is testimony of the close collaboration between the two institutions in this area. It can be said, therefore, that the signing of structural adjustment lending inevitably leads to a policy of enabling shelter by way of following its conditionalities, while it is also true that some countries follow the shelter strategy without necessarily having structural adjustment lending agreements. Suffice to say that the enabling shelter strategy would theoretically operate very well in an environment of structural adjustment, where the socio-economic and political machinery will already have been put in place.

In essence, the basic argument for this "new" approach is that private enterprise and the general public are best suited to providing shelter efficiently and equitably provided the right environment (an enabling environment) is created by the government. The role of Government is thus restricted to the creation of a conducive environment and provision of public services, which entice/ facilitate the private sector to mobilise private finance and resources for shelter and infrastructure provision. This call for the redefinition of the Government's role in the shelter sector, from provider to enabler (facilitator) is what has led to the global shelter strategy being known as the **enabling** shelter strategy. It is important to mention that the Enabling Shelter Strategy does not only deal with housing per se, but includes other infrastructure facilities such as roads, water, electricity reticulation and sewerage. The Enabling Shelter Strategy, therefore, effectively involves both the building and civil engineering sides of the construction industry.

In the main, the enabling shelter strategy (UNCHS, 1996, p. 205-224; World Bank 1993, United Nations, 1989) calls for the host Government to:

1. Transfer the financial responsibility of shelter provision from the public sector to the private sector, through market forces. This entails the abolition of the project-based approach and adoption of the programme approach, whereby the World Bank in conjunction with the host government would stop funding specific shelter projects and fund macro-economic programmes that would enable private investment in the housing market.
2. Reduce public expenditure, through the elimination of housing subsidies and housing allowances.
3. Raise government revenue by ensuring that all collectable taxes and levies from the housing sector are collected and that full cost recovery of all infrastructure and utility services provided is attained.
4. Promote private investment in the housing market, through the elimination of regulatory complexities, i.e., rent controls, and the privatisation of public enterprises. Public enterprises are accused of inefficiency, brought about by over protectionism by the government, whereas rent controls are counter productive to the housing market (Malpezzi *et al*, 1990).
5. Enhance productivity and reduce the cost of shelter, by encouraging small scale contractors who are likely to use local building materials and labour intensive building techniques.
6. Liberalise the land market so as to facilitate land supply. Shortage of land for housing has mostly been attributed to government bureaucracy, hence the removal of these bureaucratic practices is seen as a possible solution to the problem.
7. Facilitate employment creation in the housing sector, by promoting labour intensive building techniques and supporting the creation of housing affiliated industries like building materials, house furniture and so on.

ooking at the main aspects of the Structural Adjustment Programme (on p. 34-35) and the nabling Shelter Strategy above, we see a striking relation. The main relationship between

structural adjustment and the shelter enablement is in their emphasis for reduced government involvement in the local economy, reduced subsidies, and in their support for a viable economy dominated by the private sector. Both strategies are strong advocates of increased domestic demand resulting in increased local production, in our case increased construction output. The advocacy for a viable private sector market in an effort to stimulate the local economy in both SAP and the enabling Shelter Strategy thus means that Neo-Liberalism is another common denominator between them (United Nations, 1994). It is no wonder that most Sub-Saharan African countries that have applied the Structural Adjustment Programme and also applied the Enabling Shelter Strategy in an effort to maximise their economic effects (UNCHS, 1996, p. 116).

In Ghana, preliminary research on the impact on structural adjustment and the Urban Management Programme show substantial gains in economic growth, although housing investment per se has not contributed very much to that growth. This is because reduced government spending on current and capital expenditure has had the effect of slowing down economic activity, as more people are retrenched from the public service and public enterprise resulting in reduced national income. Reduced income coupled with increased housing rents and prices also meant reduced local and central government revenue as more and more tenants failed to pay their bills (rent and service bills). The anticipated large growth in the private sector has not taken place as anticipated, so as to absorb the large numbers of retrenched public workers and unemployed youth (Hutchful, 1987; Ghana Rep. of, 1987: World Bank, 1994).

Studies carried out in Nigeria by the Centre For Settlement Studies And Development (CASSAD, 1991) found that the imposition of the structural adjustment programme did not encourage investment in housing, but in short term businesses like taxis and trading. The study found that, whilst substantial ground had being made in import substitution for finished building materials, there was still a large component of imports in the raw materials. As a result, the cost of building materials was always increasing, between 100% and 800% within a decade(1977-1987). Tight monetary and fiscal control brought about by structural adjustment were also found to be impediments to housing investment as interest rates went up by as much as 15%, making mortgagee borrowing expensive and out of reach of most people. The study recommended that the private sector be given the "right climate to be able to deliver housing to all classes of people and for all tastes." The CASSAD study did not, however, find this " right climate" but called for further studies both in scope and geographical coverage to generate findings.

2.6.1 Employment creation

Employment creation is one of the pinnacles of the enabling shelter strategy, and this it is hoped should be achieved through the creation of labour intensive construction building activities, both on and off site (Spence *et al*, 1993, p.32: Tipple, 1994b). As we have already seen, the experience under the era of rapid industrialisation contributed to urban unemployment, as most industries relied heavily on mechanised and expatriate human labour. But, under the enabling shelter strategy, the concentration on labour intensive technologies is intended to create more jobs by absorbing the mostly unskilled urban labour force. Moavenzadeh (1987, pp. 83-86) has drawn on the experiences from Mexico, Brazil and India to demonstrate the effects of investing in the construction industry on the local and national job markets. For example, in Mexico in 1970, he demonstrates that the ratio for direct to indirect employment created as a result of investment in construction was between 3:2 and 5:2, whereas, in Brazil's Rio de Janeiro, one job was created indirectly for every three jobs created directly in the construction industry. In India, another Third world country, Moavenzadeh goes on to illustrate how an investment of US$ 1 million in the construction industry was able to generate 624 person-years in on-site employment (of which about 70% where unskilled labourers) and about 1000 person-years in indirect employment in the building related industry (Moavenzadeh, 1987, p. 86).

In Nairobi-Kenya, the same strategy was put to test in the Koma Rock Housing Project for 1,700 middle income households organised by the Kenya Building Society with international financial support. In this project, the organisers deliberately specified fibre concrete roofing tiles as the roofing material with the sole objective of promoting on site small scale fibre concrete roofing enterprises. Indeed, during the 14 months construction period 1.2m fibre concrete roofing tiles were produced by the 120 employees in the resultant small scale enterprises, of which two-thirds were from the low income women's co-operative. (Cambridge Architectural Research, 1993, p. 13-17) We can draw on another practical example from Bulawayo, Zimbabwe, where the city council is involved in training school leavers in building skills and helping them form small scale Building Co-operatives (10 -12 members). It is reported that these building co-operatives have built most of the recent low cost formal houses in the city and that this has enabled the Co-operative to pay wages to their members that are substantially more than the private sector is paying. These Co-operatives only need $600 as starting up capital compared to 10 to 100 times that amount required in the ordinary building business (Brock and Moyo, 1993, pp. 4-7). In both cases, however, the writers do not give the enabling macro-economic environments that were created by both Governments, to enable the small scale building enterprises to flourish. Although in both Kenya and Zimbabwe favourable financial assistance was rendered by the German government and the World Bank respectively. This leads us to ask whether foreign financial assistance is a prerequisite in the initial setting up of these small scale enterprises.

2.6.2 Forward and backward linkages

Apart from the direct economic impact within the construction industry itself, investment in it has been found to generate increased demand of products from other industries within the economy. For instance, the decision to invest and the subsequent building of houses in a country would entail increased demand for products and services like paint, timber and wood products, glass, iron and steel, cement, water supply, sewerage capacity and many others (Spence *et al*, 1993, p. 29-30). The measure of the aggregate demands created in the economy is what is termed backward linkages. Although in most cases, the aggregate demand of the products and services will typically be the same in most countries, their individual proportion of contribution of each product and service will tend to vary from country to country, as Moavenzadeh (1987, p. 81-83) has shown with the two cases from Kenya and Mexico. See below for details.

Table 2.5 Construction sector purchases from other sectors: Kenya, 1976 (per thousand Kenyan pounds of gross output)

Sector	Increases in intermediate output
mining	42
Wood furniture	26
paper and printing	7
petroleum products	92
rubber products	7
paint and detergents	14
other chemicals	17
non-metallic products	86
metals: machinery	156
transport: bus and rail	14
electricity: supply	5
construction	119
trade	47
transport services	17
restaurants and hotels	12
financial services	30
businesses: premises	5
other intermediate	**713**
wages and salaries	233
other inputs	54
total primary inputs	**287**
gross output	**1000**

SOURCE: Moavenzadeh, 1987, p. 81

Table 2.6 Construction sector purchases from other sectors per thousand Mexican pesos of gross output: Mexico, 1970.

Sector	Increases in intermediate output
quarrying	12
wood processing/ other wood products	45
oil refining	18
other chemicals	17
rubber & plastic products	11
glass	4
cement	29
non-metallic mining products	103
basic iron and steel	63
non-ferrous metals	7
furniture	3
metal structures & other metal products	38
equipment	12
electricity	3
trade	78
transport	38
financial & other services	20
other intermediate	9
total intermediate	**510**
wages	304
gross value added	**490**
gross output	**1000**

SOURCE: Moavenzadeh, 1987, p. 81-2.

Forward linkages on the other hand refer to the resultant aggregate demand generated as a direct result of the production of the aforementioned intermediate goods above. Unfortunately, as Moavenzadeh (1987, p. 83) has argued, forward linkages in the construction industry are more difficult to establish than backward linkages. This is because no clear empirical method exists for the calculation of the relationship between the commercial buildings / houses/ or civil engineering structures and the social and economic benefits accruing to the activities they shelter or serve. Klaassen *et al.* (1987, pp. 47-51) have expressed similar difficulties in trying to find an empirical method of calculating forward linkages, but that they still insist that forward linkages do exist in the construction industry.

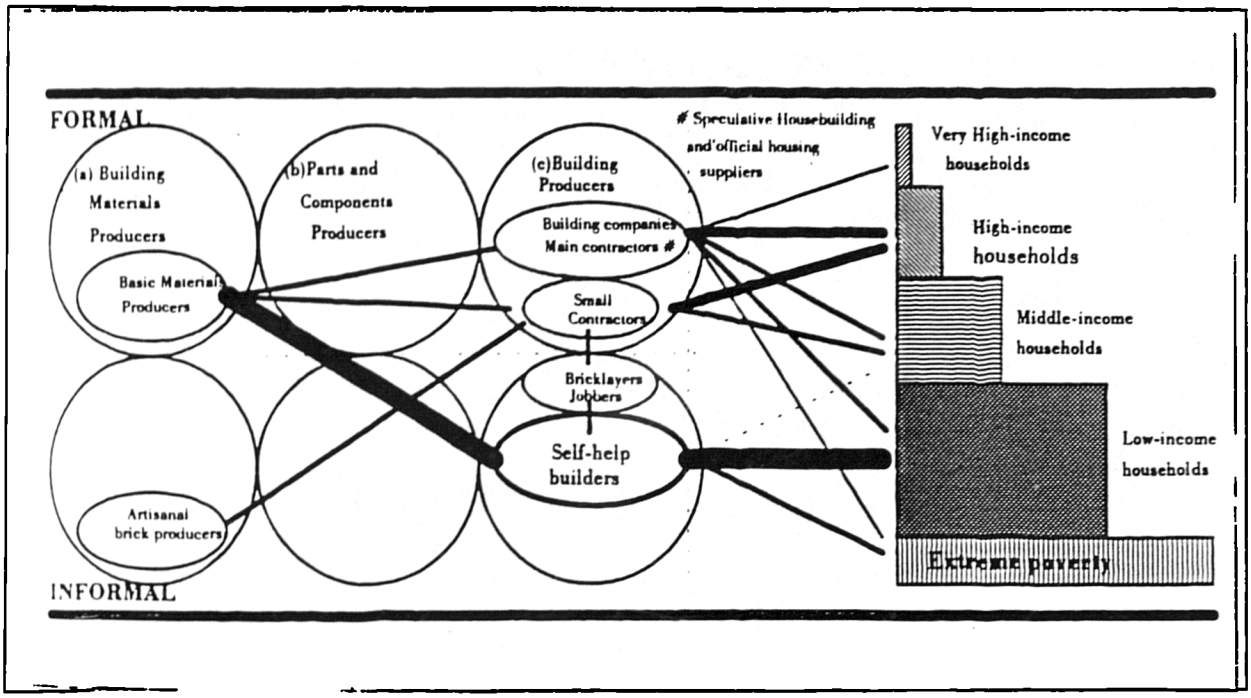
2.6.3 The multiplier effects

Various studies by different scholars and researchers have shown that direct investment in shelter results in income multipliers of about 2, which translates to mean that for every pound spent on

shelter, there is a resultant income of two pounds generated in the national economy. Klaassen *et al.* (1987, p. 53) have gone further to argue that this income multiplier varies depending on the source of the inputs used in the production process of the goods and services. Tipple (1994d, p. 14) has simply defined the income multiplier effect as "a ratio of change in nation income to the initial change in the sectoral investment." He further goes on argue that income multiplier effects are, therefore, largely dependent on the marginal propensity to buy local goods rather than buying imports.

If indeed, this is true, then it should follow that investment in shelter, for the urban poor, which tends to rely mostly on local produced and recycled materials, should have an even higher income multiplier than housing investment for the middle and high income groups (United Nations, 1995, p. 29). For example, Fernandez-Wagner (1994) has shown through a matrix (se fig. 2.2) that in Latin America high low-income households have a strong tendency of using informal self-help builders than contracting the formal building or construction companies. Similarly, the matrix shows that the very high and high income households utilise more formal construction materials and construction companies than the middle or low income households. The strong linkages among the various "actors" is shown through the size of the lines linking these "actors", in this case, therefore, a thin line between two groups shows very little linkage. For example, we see that there is very little linkages between the very the formal building companies and households in low-income or extreme poverty. The promotion of locally produced construction materials, both under the structural adjustment programme and enabling shelter strategy, can only go to support the efforts of raising national income, especially for the low income households, thereby raising the Gross National Product.

Fig. 2.2 Formal and informal linkages in the construction industry



Source: Fernandez-Wagner, 1994

2.6.4 Community enablement

The elimination of government intervention in the urban housing market and central planning tendencies under structural adjustment and enabling shelter strategy, led to a new thinking towards community planning, design and implementation. Without having to go back to the interventionist era, the Neo-Liberalists reassessed the position of the community in meeting their basic shelter needs within the realms of the free market concept, and developed the theory of community enablement. Community enablement is best defined by Burgess *et al.* (1994, p. 65) as " a strategy adopted by central and local government to co-ordinate and facilitate the efforts of community and neighbourhood- based organisations to initiate, plan and implement their own projects according to the principles of self-determination, self-organisation and self-management." Community enablement has since been enhanced as an important component of shelter enablement, especially in taking care of the vulnerable groups in society, after the World Conference for Social Development in 1995 in Copenhagen.

What is new in this concept of community action, is in the shift in terms of the organisation structure and power base of the community based organisations, in that control and management has moved away from central planning (under the previous system) to the grass-roots in the community itself. The role of government (both local and central) has also been minimised to policy formulation, with the Non-Governmental Organisations (NGOs)and Community Based

Organisations (CBOs) undertaking the actual ground work. Grants and any form of assistance to these communities is thus channelled through these organisations. The premise for this operational arrangement is that these community organisations are better placed than governments to effectively help the (urban) poor, especially the vulnerable groups like women. It is argued that the advantages in using the NGOs and CBOs are that they;

1. are low cost in their operations;
2. are grassroots oriented and thus know the conditions of the community best;
3. plough back the profits in the community hence raising the economic base of the community;
4. teach appropriate skills to the community;
5. are non partisan. (Urban Edge, Oct. 1989, pp. 1-6)

In the shelter sector, community enablement calls for the full participation of the communities in the decision making process affecting their housing; shelter provision, improvement and maintenance. To this end, UNCHS and the international community have mobilised themselves in assisting local NGOs and CBOs to achieve that goal. International aid funds for this scheme now go directly to these community organisations rather than through governments, the key objective being to help the community help itself through business activities rather than perpetuate aid by simply giving food aid. To this end, UNCHS and the World Bank have helped set up shelter related businesses like brick making, clay tile making, crushed stones sales, and fibre cement roofing sheets, in different parts of the World. Besides placing high priorities on the profit motive, these businesses all tend to rely on traditional/ appropriate technologies: local raw materials, labour intensive labour, and small scale operations, which are encouraged under the Structural Adjustment Programme and the Enabling Shelter Strategy.

However, despite this seeming success story, others are not entirely convinced that the theoretical benefits are really been enjoyed on the ground and would like to see empirical research carried out to verify this thesis (Burgess *at al*, 1994).

2.6.5 Gender empowerment

Gender empowerment is another fashionable concept that has recently been added to the shelter and development paradigm after the Beijing Women's and the Copenhagen Social conferences. Irrefutable data now exist to prove that most women, especially in Sub-Saharan Africa, do not have the same access as their male counterparts to shelter resources (UNCHS, 1996, p. 347). The Copenhagen Social Development summit of 1995, actually went further to identify most women in the Third World as constituting the bulk of the disadvantaged and vulnerable groups that had no access to shelter. To eradicate these negative trends, the Enabling Shelter Strategy now has a

deliberate policy component of targeting women in its shelter strategy in the hope of not only giving them access to better shelter but also an opportunity to better themselves economically (UNCHS, 1996, p. 349).

2.6.6 Sustainable development

The protagonists of the enabling shelter strategy claim to have developed their strategy within the realms of global sustainable development. There are three components to sustainable development, Economic, Social and Environmental sustainability, with each component concerned with present and future methods of sustaining national development. According to the World Commission on Environment and Development, "sustainable development is development that meets the needs of the present without compromising the ability of the future generations to meet their own needs" (FINNIDA, 1991, pp. 1).

Although sustainable development first gained World prominence in 1987, with the report by the World Commission on Environment and Development, *Our Common Future*, it was only in 1992 with the Rio de Janeiro Conference that countries appended signatures to their commitment to attaining sustainable development. The Rio Conference was based on the recognition that rapid population increase, high technology and mass production were increasingly depleting our natural resources and that, unless something was done immediately, the future was going to be bleak (see also Wells, 1993, 1995). The resultant plan of action adopted by the United Nations Conference on Environment and Development is contained in a document called *Agenda 21*, of which chapter 7 is devoted on human settlements.

Agenda 21 does not in any way introduce new concepts to the global shelter strategy, on the contrary it reinforces the same areas only with sustainable development in mind (Urban directions, 1993). Having seen the emphasis of enabling shelter strategy on the use of local raw materials, like timber and stone, it is not difficult to imagine the possible environmental impact, given the millions of homeless people in the Third World. To this end, *Agenda 21* sets the following environmental guidelines[6] for the construction industry in order to attain sustainable development:

1. provide technical support and economic incentives to small scale and informal sector builders that use local materials and traditional construction methods;
2. adopt standards that promote energy efficient designs and sustainable use of resources;
3. promote the free exchange of information and develop databases on environmental and health aspects of construction;

[6]The economic and social guidelines are mostly covered under structural adjustment and enabling shelter strategy, hence are not repeated here.

4. discourage the use of materials that create pollution during their life cycle;
5. promote recycling of energy-intensive building materials and energy conservation in the production methods.
(Urban Directions, 1993. p. 9; UNCHS, 1996, p.227)

2.7.0. Rival shelter and development models /theories

So far we have looked at the Third World housing and development paradigms mainly from a one sided view point, i.e., the Western model. In reality, however, the Third World was always divided into the Eastern and Western camps; between those that followed Capitalist and Marxist economic and housing principals. The dichotomy was not always as clear as black and white. Some countries had a mixture of both principals, Zambia being one of them. Similarly on the housing front, not all researchers and scholars were/are divided into the capitalist and Marxist camps, some are liberal minded and accommodate both philosophies, hence coming up with their own brand of housing and development models.

2.7.1 The Neo-Marxist school

The Neo-Marxist school, despite the apparent demise of Marxism, remains the most renowned critic of the Structural Adjustment Programme and its affiliate, the Enabling Shelter Strategy. Drawing on the writings of its founding fathers like Marx, Lenin, and Engels, the Neo-Marxist school sees the Structural Adjustment Programme as a late twentieth century Neo-imperialist plot, to plunder the Third World countries as against the primitive nineteenth and early twentieth century plunder of the colonies.

The new global economic order is seen as the prerequisite for the expansion of capitalism; the search for profit. Amin (1976) argues that market expansion beyond national borders is inherent in capitalist societies, in their search for profits, through expanded markets to sell their goods and as cheap sources of raw materials. The Neo-Marxist theory goes on to argue that, having lost the Third World market through decolonialistion in the 1960's, the debt crisis of the 1970's thus presented the Western Capitalist order with yet another opportunity to bring the Third World under its economic hegemony. The Neo-Marxist school argue that the Structural Adjustment Programme and its affiliated programmes like the Enabling Shelter Strategy are designed to perpetuate underdevelopment in the Third World and have developed a model: The Neo-colonial Dependency Model, to argue their case (Todaro, 1994, p. 81).

In the housing sector, the withdrawal of housing subsidies to the poor, the principal of full cost recovery and market pricing while at the same time reducing public service employment (where most poor work), are further manifestations to the Neo-Marxists that the structural adjustment programme and its sectoral programme of enablement are only profit driven, with no human or

developmental considerations. To a Neo-Marxist, housing is a basic need and hence a basic right of each and every citizen and, therefore, they see the responsibility of housing provision to be that of the state rather than of the private individual through the market. By placing housing on the market, the Neo-Marxist school argue that housing is being treated like a commodity rather than its rightful place of a social service.

Recent trends, however, point to the fact that Neo-Marxist now agree that housing has a role to play in the macro-economic equation of a nation's economy. For instance Mathey (1985) admits that the state role in housing provision, using industrialised building technology, was uneconomic as it relied on imported components and was highly capital intensive rather than labour intensive, hence contributing to unemployment. He, therefore, proposed a more labour intensive labour approach in the production of houses, although still rejecting the notion of self-help through an individual but favouring the collective type of self-help. His reasoning is based on the thesis that self-help is, by definition, unqualified labour and, therefore, time consuming and inefficient. Also since self-help is done outside normal working hours, its contribution to economic growth is never taken into account.

The Neo-Marxist school also dismisses the Neo-Liberalist's theory that central planning, bureaucratic system and highly industrialised housing provision are costly, inefficient and mismatch people's needs. Whilst demonstrating that self-help housing is cheaper than official housing, they attribute this to the fact the self-help builder is able to avoid the exploitative capitalist land market, by squatting or building in the urban fringe, avoiding the building materials monopolies by using his own made materials or throwaways, and avoiding the exploitative labour market of subcontracting, by using cheap and unprotected labour. To the Marxist, therefore, self-help lowers the building cost not because it bypasses the state bureaucratic system but because it bypasses the exploitative capitalistic market. In Rod Burgess's own words, "thus it is not the absence of a technocratic and bureaucratic system or the legal housing norms, or the sequence of building operations, that have cheapened his house, it is merely the fact that he is operating in a different sphere of circulating capital that covered by the petty-commodity production of housing. He has not escaped capitalism ...he is merely in another part of it" (Rod Burgess, 1977, pp 54-55).[7]

In purely housing terms, the principal of common ownership of the means of production meant placing the decisions on housing provision, its allocation and pricing, in the hands of the central and local government (and co-operatives). In extreme cases, especially in the early years of

[7]Note that this theory was being advanced to counter John Turner's theory of autonomous /self-help housing in Latin America.

socialism in the eastern block, all the supply factors (land, capital and labour) of housing were in state control, although later on some form of individual private controls were exercised depending on the individual states (for details see Trialog, 6, 1985 and Turner *et al*, 1992). Strict central planning controls ensured that building regulations were enforced, the absence of a capital market also saw to it that no private house construction was possible. With the central planning authorities firmly in charge of the setting of building standards, the actual construction of the houses, maintenance, and allocation, there was little room for individual interests. Families were often forced to share flats and houses, depending on the authority's judgement of the best way of meeting the housing needs and the resources available at rents set to reflect political or social circumstances (symbolic rent) rather than demand and supply. Marxist are also against the policy of home ownership as they argue that private property tends to divide the working class into tenants and owners, thus exacerbating the class conflict in society (Merrett, 1982, p. 279). There is no evidence, however, to support this view. On the contrary, home ownership especially where council houses are sold to the public, tends to help the under-class own their own houses.

In socialist states, the quest for rapid industrialisation, heavy burden of welfare services, and limited financial resources, meant neglecting the housing sector altogether. This point is well illustrated in the Guinea Bissau case, where the socialist government there invested heavily in its agriculture and industrial sectors, at the expense of urban housing. With no private housing market to fill the void created by the government, the shortage of urban housing soon became a national crisis (Davila, 1987). The net result of this form of practices was that there was massive shortages of housing in almost all socialist states, which most scholars including Turner *et al* (1992) have attributed to the following;

1. The absence of a capital market meant that individuals, most of whom earned very little wages to save, had no access to capital for house building.[8]
2. The setting of symbolic rents, meant that the governments were not able to recoup their investment to replicate the housing construction process, let alone take care of maintenance. In the end, less and less housing was made available whilst the need for it was going up, opening the system to corrupt practices.
3. Centralised planning, design and housing construction without the consent or consultation of the households led to unsuitable housing being built; the typical socialist concrete high rise tower blocks.
4. State control and protection of the construction (housing) market is said to have killed off the competitive urge of the construction industry and hence eliminating the incentive to maximise profit that could have been used to reinvest in housing and the national income.
5. Inefficiency in the housing market is blamed on state intervention and state control of the housing market, although Baken and Van der Linden (1993, p.5) have argued that this

[8]Although in principal private ownership in housing was banned, individuals were allowed to build and own a house as long as they did not seek to make private capital from it.

> phenomenon (inefficiency) is equally prevalent in housing markets of advanced capitalist states.

No doubt, the Neo-Marxist school has made a positive contribution to the housing and development debate. However, its greatest weakness has been its failure to offer an alternative model in the wake of the crippling Third World debt and the resultant structural adjustment programme and enabling shelter strategy.

2.7.2 The moderates (or Liberals)

For the purposes of this thesis, we shall refer to the moderates as that school of thought which does not agree in totality with structural adjustment and the enabling shelter strategy nor with the Neo-Marxist school, but could be said to be in-between the two opposing theories. Ironically, the dominant voice in this school has come from the United Nations' own agencies like UNICEF, which produced a very critical document on structural adjustment and the negative effects it had on the vulnerable groups, especially the women and children. Whereas it did not call for the total abandonment of structural adjustment, it was very critical of the low levels of investment in areas of social development, especially health and education. The full findings were published in a book entitled *Adjustment with a human face* (Cornia *et al*[UNICEF], 1987), which had adverse influence on subsequent programmes of the World Bank and the IMF. The major criticism in this report was over the drastic cuts that were being made to social services, and the resultant effects this was having on the "poorest of the poor" in society. The report went on to warn of the creation of a poverty trap if corrective action was not taken sooner. The response from the two international financial institutions was prompt, and the social action programme was born, as we have seen under community enablement (above).

There is now a vast literature that shows that the immediate net impact of the Structural Adjustment Programme on poor households in urban communities of Africa is to further reduce their incomes. Even the UNCHS (1996, p.116), whilst supporting Adjustment policies, have conceded that SAP has had negative effects on poor urban households.

> Although there have long been serious problems with urban poverty in the South, it was only in the 1980s that it was given more attention as economic crises and the impacts of structural adjustment increased the number of households with incomes below the poverty line and increased the intensity of their deprivation (UNCHS, 1996, p. 116).

Such findings have only reinforced the arguments against the removal of government benefits (subsidies) to the poor in the hope that the market will take care of them. Research by Hardoy and Satterthwaite (1981) also dispels the criticism that public agencies have failed to provide

adequate housing to the public especially the poor. In a study of seventeen[9] countries drawn from the Gulf region, Africa, Asia, and Latin America, they found that only Singapore had almost solved its housing problem with two-thirds of the housing stock being provided by the public housing body: The Housing and Developing Board. They drew the conclusion that it was not so much the operation apparatus that mattered but the state of the economy in the success of housing provision. In their comparison of the seventeen countries they found that only Singapore, Mexico and Tanzania had comprehensive settlement polices and political will to tackle housing problems, but yet only Singapore had nearly achieved that, and with public enterprise, when in the other sixteen countries the informal sector seemed to fare better. Singapore's economy was then (1960-1978) the fastest growing amongst the seventeen at 7.45 % per annum.

Weeks is another prominent development economist critical of structural adjustment and its effects on low-income countries. Writing in the FAO Journal (Ceres, No 143, September-October 1993), Professor Weeks argues that structural adjustment has failed to achieve its intended targets in most of the low-income counties and that where it has done so, it had done so despite the World Bank's policies (The Courier, 1994, p. 64). Sinha (1995) has also argued that "the outcome of stabilisation and structural adjustment policies, largely based on the neo-classical economic rationale, was justifiable neither in terms of the analytical nor the historical literature." He further goes on to demonstrate how the contradictions in policy and the ideological nature of the host countries have "inhibited successful implementation and accentuated poverty and inequity in developing countries." Sinha also questions the theory of free trade as applied to developing countries. He notes that all developed countries only adopted free trade upon reaching technological maturity, a factor missing in developing countries. He then wonders why the change in principal? He is equally unconvinced on the conditionality of devaluation as he argues

> Currency devaluation in countries dependent on imports of food, machinery and intermediate goods, raised cost of production and the living costs, thus furthering inflationary pressures. Even if such devaluation raised the prospects for increased export earnings, parts of the stimulus effect was undercut by the increase in production costs. Besides, the very act of devaluation imposed on debtors an enlarged burden of debt repayment and servicing. Consequently, International Financial Institutions policies became an exercise in debt enhancement rather than debt reduction. Above all, devaluation results in increased costs of living, drastic reduction in government expenditures, and reduction in wages (Sinha, 1995).

---

[9]The seventeen countries are Kenya , Nigeria, Tanzania, India, Indonesia, Nepal, Phillippes, Singapore, Bolivia, Brazil, Colombia, Mexico, Egypt, Iraq, Jordan, Sudan, and Tunisia.

2.8.0 Summary

In this chapter, we have traced the origins and context of the current global phenomenon of structural adjustment and the enabling shelter strategy, and discussed the postulated national development gains in the construction industry, supposedly to accrue to the countries applying them. Preliminary research in some countries do not give conclusive results, so as to generalise the implications of the aforementioned policies and nor give insights of what the future for Sub-Sahara African housing and the construction industry are likely to be, in light of the Neo-Liberalist policies being applied.

3.0.0 CHAPTER THREE: BACKGROUND INFORMATION ON ZAMBIA

3.1.0 Introduction

In the previous chapter we saw how the linkages between the construction industry, shelter strategies and national development have evolved world-wide in the past few decades. We now intend to focus on Zambia and see how the same linkages have evolved in Zambia and also look at the factors that led to their adoption and implementation. In this regard, it is important to understand the Zambian political and socio-economic environment, especially the construction market and its shelter-sub market. It is hoped that, by contextualising the Zambian environment with the rest of the World and the global phenomenon of structural adjustment and shelter enablement, we shall avoid the pitfalls that other researchers may have fallen into. Baken and Van der Linden (1993, p. 8) have argued that the absence of context of the home country when applying and analysing housing policy is one of the fundamental flaws of most scholars and institutions, including the World Bank. They rightly observe that,

> ...many World Bank consultants set out from a one-sided technical viewpoint: they assume that internal coherence and integrity make their plans self-validating. They largely ignore the fact, however, that the main actors in urban development may behave in ways which are not in keeping with the technical logic of their plans, but which, nonetheless are quite coherent in view of the specific local political and social-economic situation.

In tracing the historical background of Zambia's national development problems, particularly those pertaining to the construction industry, we hope to give the reader an insight into the origins of today's construction industry problems in Zambia and also analyse past attempts at solving them. We intend to highlight the reasons why some past UNIP Government policies relating to the construction industry are now being condemned by the present MMD Government, scholars and the International Monetary Institutions. For example, we intend to discuss the reasons and rationale for the previous UNIP Government in nationalising private companies and why today's privatisation of the same state companies is one of the key issues under the Structural Adjustment Programme.

We shall discuss the reasons why earlier UNIP Governments development strategies as guided by the philosophy of humanism were able to record unprecedented high economic growth rates and a booming construction industry. We will focus on the reasons why the economic and construction boom took an irreversible downward trend in the mid 1970's. In this chapter we intend to find out whether there are lessons to be learned from Zambia's past in relation to the construction industry when adopting new development strategies like SAP and shelter enablement.

3.2.0 Post independence Zambia (1964-1991)

It is no exaggeration to say that Zambia's problems started almost immediately after independence in 1964, when the pass laws which had previously barred rural dwellers from coming into the urban areas were lifted, and Ian Smith the then Prime Minister of Southern Rhodesia (now Zimbabwe) declared Unilateral Declaration of Independence (UDI) in 1965. The adoption of Humanism as a guiding national philosophy for economic, social and political development by the United National Independence Party (UNIP) only seems to have worsened matters. Nationalisation of foreign and privately owned property was encouraged under the philosophy of Humanism in the late 1960's. The events cited above had the effect of increasing Government spending in the area of social services and defence, and at the same time introducing inefficiency in the newly established state controlled companies (Elliott, 1971; Hamalengwa, 1992; Mwanakatwe, 1994).

We can divide Zambia's construction industry contemporary problems in the area of national and shelter development in the following main factors:

1. Political factors
2. Economical factors
3. Social factors

3.2.1 Political factors

In the words of Dr. Kaunda, the first president of Zambia, "political independence without matching economic independence is meaningless" (Kaunda, 1969b, p. 35). According to Dr. Kaunda, only when Zambians and Africans in general had attained control of their economic and social affairs could they regard themselves as totally independent, in other words political independence was only a "vehicle" for total independence (Davidson, 1978, p. 287). Dr. Kaunda regarded foreign investors and their investment in Zambia as a source of Zambia's underdevelopment problems. This view was based on the pre-independence figures that showed that, although Zambia was relatively rich from the sale of copper, most of her wealth was externalised and thus very little economic and social development took place in Zambia. For example, between 1924 and 1964, Segal (1979, p.198) has stated that over £400 million was externalised from Zambia mostly to Britain and Southern Rhodesia in the form of dividends, interest and royalty payments. He further states that, from the £40 million that was collected as taxes, only £5 million was spent within Zambia.

With the attainment of independence on the 24th of October 1964, it was felt that the socio-economic structure left by the British colonialist was not adequate or appropriate in meeting the expectations of Zambians. Hence, there was a need to adopt an appropriate development strategy

for Zambia. There were very high expectations from the attainment of independence. Zambians expected good pay, good housing and a high standard of living almost overnight. The UNIP Government seems to have been content with the capitalist structure left by the colonial masters until 1968, when capitalist practices were increasingly being held responsible for Zambia's development problems. Dr. Kaunda repeatedly asserted that capitalism was the motive behind the continued siphonage of huge profits from Zambia to the West, to the detriment of the country. Dr. Kaunda and his UNIP Government associated Capitalism with the exploitation of man by man for the benefit of individuals or a few and hence justified the introduction of their brand of socio-economical and political philosophy of Humanism.

The declaration of a one-party-state in 1973 also meant the party UNIP was supreme to Government. Members of Parliament were not allowed to criticise any of Government policies in public or ask critical parliamentary questions. In the end, especially during the Second Republic, parliament was a mere rubber stamp of policy decisions that were being taken at UNIP's national party conferences (Tordoff and Molteno, 1974). The supremacy of Party over the Government in the 'One Party Participatory Democracy' ultimately led to poor economic and developmental decisions not being criticised or critically analysed by competent civil servants, professionals or parliamentarians. Top civil servants, the police and defence chiefs, trade unions leaders and academics were all brought into the rank and file of UNIP, with the result that these people could not effectively criticise or analyse party policy or decisions. The introduction of the Decentralisation Act of 1980 which removed the elected mayors and replaced them with the appointed party District Governors only added to the mal-administration of local Government. The appointed District Governors were no longer accountable to the local inhabitants but to the appointing authority: the President.

3.2.1.1 Humanism

In rejecting capitalism and its profit motive, Dr. Kaunda developed the philosophy of Humanism, which he often said put mankind at the centre of all his activities (Kaunda, 1969:1974). It is important to note, however, that Dr. Kaunda's philosophy of Humanism is different from the traditional western notion of Humanism: the denial of God. With Kaunda it was the reverse, Humanism it was claimed, saw mankind as the centre of God's creation. Coming from a deeply religious family, Dr. Kaunda did not divorce his philosophy or his politics from the bible, although he has been often criticised for not practising what he preached. The opposition party, the African National Congress (ANC) went further to condemn the philosophy of Humanism saying "the philosophy of Humanism is nothing but Communism" (Tordoff and Molteno, 1974, p.204). Although in practice, humanism was not as extreme as communism, capitalist tendencies

(profit maximisation, ownership of property by foreigners, economic prices and rents) were all condemned under the philosophy of humanism.

> Continued control of any economy by foreigners tends to impose limitations on the freedom and independence and this factor is a negation of the concept of Humanism...Humanism does not prevent an investor from making profit, it merely ensures the equitable distribution of the economic returns among all participants... If I see that prices in Zambian retail shops are higher than those in expatriate shops, if I hear that Zambian workers are not provided with housing... then the Zambian businessman will be dealt with firmly indeed whether they are Co-operatives, companies, partnerships or individuals (Kaunda, 1969b).

It was further urged that a Humanist state could only be best achieved through a socialist state: through the elimination of privileges and inequalities for all Zambians. Given this background it is not surprising that the UNIP Government set about nationalising all major means of production in Zambia, and went further to providing all major social services free to all its citizens irrespective of their financial status. Education and Health were provided free of charge (non-fee-paying), housing was heavily subsidised by the employers through legislation which required every employer to house his/her employees or provide a housing allowance in lieu. It is fair to say, however, that the policy of tying housing to employment was a carry-over from the British colonialists. Other aspects of everyday life like transport, water and electricity were also subsidised. The selling and buying of undeveloped land was also banned, arguing that there was no justification in making profit from God's own given resource, when no effort or resource had been put in to develop them. Following the Matero reforms of 1969, most urban land was compulsorily acquired by the government, subject to payment of compensation, and in respect of undeveloped land or absent landlords no compensation was paid.

> Land obviously must remain the property of the state today. This in no way departs from our heritage. Land was never bought, it came to belong to individuals through usage and the passing of time. Even the elders had overall controls although as is already pointed out, this was done on behalf of all the people (Kaunda, 1969, p. 21).

On 30th June, 1975, the Zambia government went further and changed the entire land tenure system in Zambia under the Land (Conversion of Titles Act of 1975). All vacant and undeveloped plot were nationalised, the freehold land tenure system was abolished, and in its place a 99 years leasehold was introduced. The nationalisation of all vacant and undeveloped (plots) land only contributed to squatting, as the government was less effective in removing squatter settlers from its land than private landlords (Mashamba, 1990, p. 59).

3.2.1.2. Decolonialisation of Southern Africa

Apart from striving to attain total independence within Zambia, the Zambian leaders, like most other African leaders of the time, were not content with individual state independence and thus committed themselves to the total liberation of the rest of Africa from the Colonialists. Zambia committed most of her efforts and resources to this objective and paid dearly for her out spoken views at international fora, for supporting liberation movements and even applying economic sanctions on her 'white African' principal trading partner: Southern Rhodesia.

The United Nations (UN) put Zambia's cost of applying economic sanctions to Rhodesia alone between 1965-1977 at $750-800 million, while its share of aid from the United Nations (UN) was only $100 million during the same period (Segal, 1979, p. 202). Aside from the economic sanctions, other losses came as a result of military operations carried out inside Zambia by the Portuguese, South African and Rhodesian security forces in their pursuit of freedom fighters based in Zambia. Although the Zambian Government has never released military spending figures, it is well known that a considerable amount of the Zambian budget went into her defence. As a result, less and less of Zambia's budget was made available for other developmental projects like housing.

3.2.1.3 Unilateral Declaration of Independence (UDI) in Rhodesia

The declaration of Unilateral Declaration of Independence in Rhodesia by Ian Smith on the 11th of November, 1965 and the economic sanctions that followed, had the effect of exposing Zambia's economic vulnerability and its heavy dependence on the white-led Southern African countries. At independence in 1964 for example, 38% of Zambia's imports came from Rhodesia and a further 22% from South Africa, and its copper exports were entirely dependent on Rhodesia Railways (Pettman, 1974, p.114). Sensing economic and military vulnerability, Zambia responded with economic measures of nationalisation and import substitution. These measures were meant to ensure economic growth amid the hostile external forces of the white-led Southern African countries of Angola, Mozambique, Rhodesia, Namibia and South Africa.

The quest to ensure economic growth in Zambia and the equitable redistribution of wealth among Zambians, amid potential military and economic threats from her white neighbours, led Zambia to develop her own industries and new trading routes to the north (see fig. 3.1). The imposition of an export tax of £5 a tonne on Rhodesian coal, immediately after UDI, applicable only to Zambia, increased the price of coal six fold and only added to the quest to seek alternative trade routes (Pettman, 1974, p. 119). For example, the Tanzania-Zambia Railway (TAZARA), a railway line stretching over 1,500 km from the port of Dar es Salaam in Tanzania to Kapiri Mposhi in Zambia, was built as a gateway to a friendly 'black' African country. The railway line was built by

the Chinese Government after the World Bank and the Western World had refused to finance and carry out the project because they considered it to be uneconomical (Pettman, 1974, p. 118).

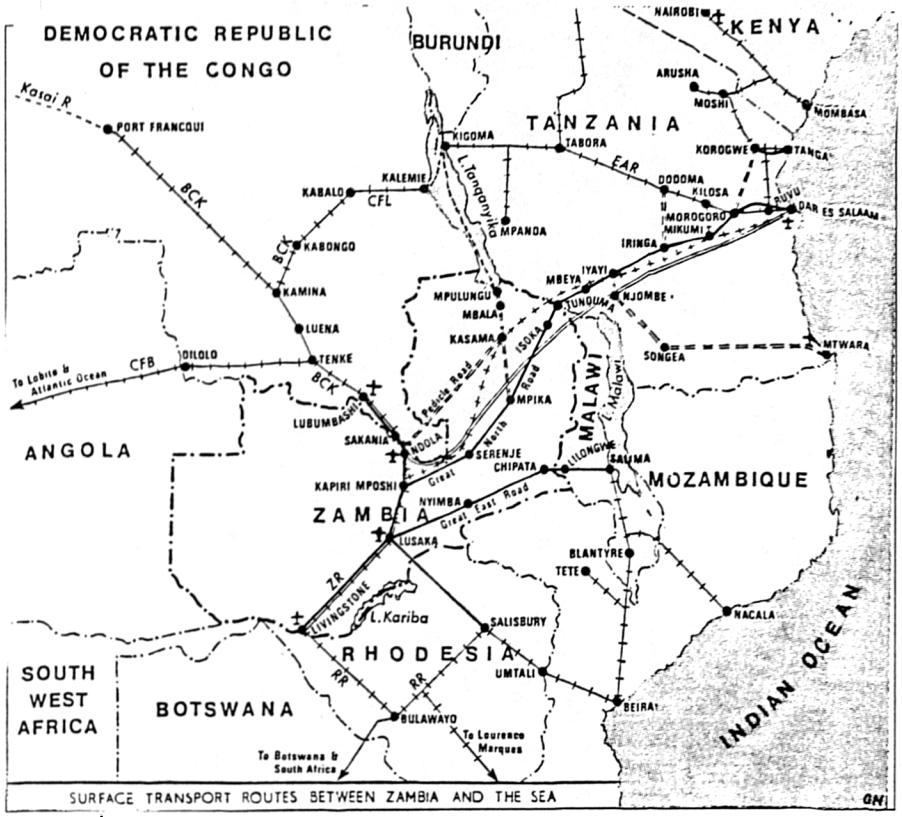


Fig. 3.1 Surface transport routes between Zambia and the sea

Source: Bostock, 1971, p. 326

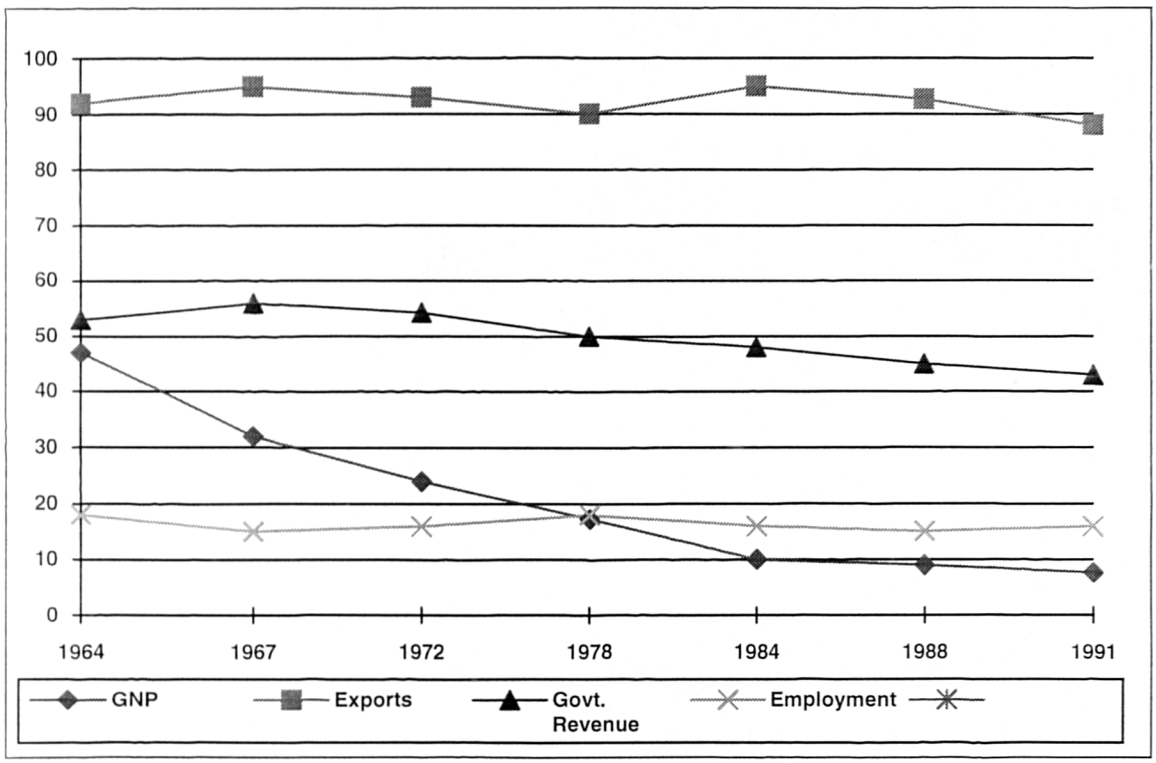
The experiences of December 1965, when Rhodesia cut off Zambia's fuel and oil supplies, led to the decision to build the Tanzania -Zambia pipeline (Tan-Zam-Pipeline) in October 1966. It runs from the port of Dar es Salaam in Tanzania to the industrial city of Ndola in Zambia and was successfully completed in September 1968 by an Italian company: ENI. Consequently, this massive investment in Zambia's infrastructure and industries, as a way of fighting its dependence on the 'white South,' led to a great economic and construction boom in the period immediate after independence (see figures 3.3 and 3.5).

3.2.2 Economic factors

At independence from Britain in October 1964, Zambia inherited a capitalist oriented economy, dominated by the copper industry which contributed on average 90% of Zambia's total exports and about 50% of government revenue. Refer to figure 3.2 for details. Subsequently, the heavy dependence on copper exports as a main source of government revenue, with its high volatile prices has been the major cause of Zambia's economic problems, ultimately affecting the construction industry. In times of high copper prices resulting in increased government revenue,

the Zambia government has been able to carry out large construction projects which have increased the value added for the construction industry.

Fig 3.2 Percentage (%) contribution of copper industry to principle economic variables



Source: Elliott 1971, p. 3: with additions from TNDP, 4th.NDP and 1991 Economic report

3.2.2.1 Economic disengagement

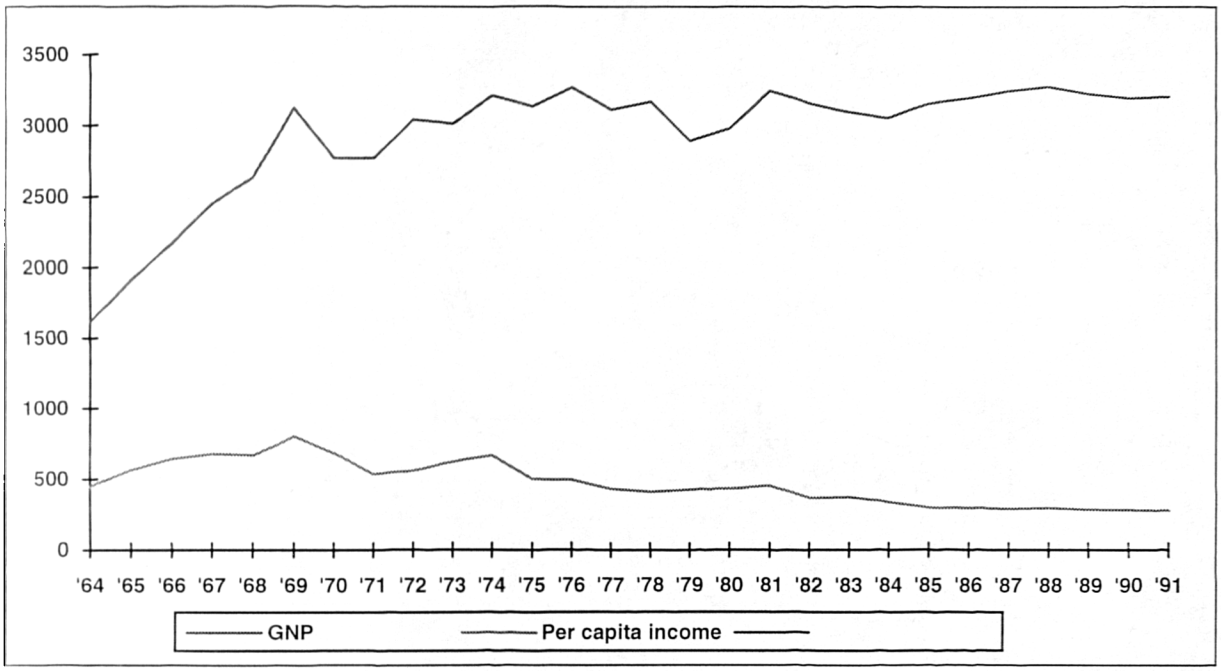
The Industrial Development Corporation (INDECO) was formed in 1965, with the key objective of spearheading the "economic disengagement" programme. A number of state owned companies were formed which in essence gave the state a 51% share interest. Within two years Rhodesia's share of the Zambia's market dropped from 40% in 1965 to 10% in 1967 (Goodman, 1971). The economy was recorded to have been growing at an average rate of 15% per year, owing mainly to the new economic programme. The total contribution of manufacturing to GNP also rose from K24.2 m in 1963 to K78.9 m in 1967. As a proportion of GNP it rose from 6.1% to 10.8% in the same period (Faber, 1971).

3.2.2.2 Nationalisation of private property

The nationalisation measures contained in the Mulungushi reforms of 19th April 1968, the Matero reforms of 11th August 1968 and finally those of the 10th of November 1970, completely changed the structure of the Zambian economy. By 1975, 70 large companies in the construction,

commerce and road transport had been nationalised or incorporated by the Zambia Government. But with only about 100 graduates at independence, there was obviously a tendency to place unqualified Zambians in positions in which they had no training, as most previous owners of these nationalised companies opted to go to Rhodesia or South Africa (Beveridge and Oberschall, 1979, p. 253). The appointment of party members into the civil service and state owned companies also meant that the Zambian economy was heavily politicised (Tordoff and Molteno, 1974, pp. 242-288).

Fig. 3.3 GNP and per capital income at constant 1980 prices 1964-91 (GNP in Kwacha million)



Source: Mwanawina, 1993, p. 70; Economic Report 1991 and 1995, CSO 1991

From figure 3.3, we see that the Zambian economy was growing at an average annual rate of 15% between 1964 and 1969, a factor which can clearly be attributed to the massive investment that the government injected in the economy within that same period. It is, however, difficult to precisely pinpoint the factor/s that led to a negative growth rate in 1969, but it is likely that the Rhodesian sanctions, and their resultant fuel and raw materials shortages, and the mass exodus of expatriates staff after the first nationalisation programme, all contributed. It is also important to realise that, despite the effect of UDI, Zambia was able to register a high rate of growth thanks mainly to the high mineral royalties which grew from £239 in 1963 to £729 in 1969 (Burdette, 1988, p. 64).

From 1970 onwards, however, we begin to see the Zambian economy in stagnation with reduced per capita income due to rising population (see, figure 3.3; and tables 3.1; 3.2). There are a number of reasons to explain this phenomenon. The continued exodus of expatriate staff and the subsequent premature Zambianisation programme that followed obviously had a negative impact on the economy, especially on the copper industry. It can also be argued that nationalisation of the economy in 1968 and 1969 discouraged both foreign and local investment so that, in the end, only public capital and resources were being utilised in the economy. The quotation below from President Kaunda will help illustrate the mistrust and the poor relations that existed between foreign investors and the Zambian government (see also Beveridge and Oberschall, 1979).

> Today our society is being exploited very badly indeed by unscrupulous men and women who are driven to the extreme right by the profit motive. A good number of them bring very little capital into Zambia, but because of their know-how they are able to build something locally on borrowed Zambian money and send out of the country excessive profits after a very short time (Kaunda, 1969b, p. 37-37).

Although in reality the UNIP government allowed some form of private entrepreneurship, the President made it very clear that the Government always had the option of interfering in this sector.

> I shall be the first to congratulate and admire a businessman who has managed to create a very large enterprise. It shows initiative and ability. But at the same time, I want them to see my point of view that when they get very big they must come and work for the state, for the benefit of Zambia as a whole. I do not want to create capitalism here (Kaunda, 1969b, p. 59).

No doubt, such statements coming directly from the president scared off both local and foreign private investment and entrepreneurship. Mwanawina (1993, p. 72) further argues that Zambia's problems in the mid 1970's through to 1991 were mainly due to severe mismanagement.

The corresponding impact of Zambia's economic problems in the construction market was seen in reduced public investment in housing and severe shortages of building materials. This was mainly because of the large import component in the Zambian building materials industry. The absence of a thriving private market, for reasons already alluded to, meant that the local private entrepreneur could not take advantage of the situation and promote a local materials industry. Even those with private funds found the situation almost impossible to build, as most building materials could only be got from the black market at prices 2 or 3 times the official price (Fewings, 1991, p. 37; see also figure 3.7).

The international oil crisis of the 1973 was like the final nail in Zambia's coffin. Zambia's annual fuel bill rose from $17m to $252m overnight (Pagni, 1988, p. 77). As if that was not enough, copper prices began their downward trend. So whereas the country's oil bill was growing, the revenue from copper was declining. By the beginning of the 1980's Zambia's balance of payments was severely in the red and needed foreign exchange support. It should be noted, however, that Zambia's balance of payments first went in the red in 1971, and then again in 1972 and was able to draw on the IMF's compensatory financing facility. In both instances no conditionalities were given as the understanding was that this was a one off case and the situation would correct itself in future (Mwanawina, 1993, pp. 71).

3.2.2.3 Structural Adjustment under the UNIP government

Zambia joined the International Monetary Fund (IMF) in September 1965 and is also a member of the World Bank, hence its turning to these two financial institutions for help when it first experienced severe balance of payments support problems in the 1970's. However, persistent economic ills led the IMF to believe that corrective measures needed to be taken if the Zambian economy was to grow. In 1976 when the Zambian government went back to the fund for more balance-of-payments support, this time the fund attached conditionalities to the loan. At this time, however, the World Bank and the International Monetary Fund believed in monetary policies as a way of correcting third world economies, hence the Zambian Kwacha was devalued by 23% (Mwanawina, 1993, pp. 72). The theory was that, by devaluing the Zambian currency, this measure would have the effect of reducing imports and stimulating exports, which would finally have the net effect of cancelling the negative balance-of-payments. Unfortunately this was not to be, and again in 1978 Zambia approached the fund for more financial support and the IMF applied the structural adjustment conditionalities to Zambia for the first time.

The World Bank and the IMF had, by now, concluded that Zambia's economic malaise was more structural than was previously thought, and other global experiences would seem to point in that direction. The IMF wanted to see Zambia's economy back in private hands, hence the insistence on liberalisation of the economy as the condition for borrowing. Although the UNIP government agreed to this conditionality merely to secure the loan, no concrete steps were taken in that direction. The then UNIP government insisted on pursuing a socialist economy based on humanistic values.

Finally in 1984 and 1986, when Zambia went back to it for more financial assistance, the IMF in close collaboration with the World Bank added the flotation of the Zambian currency on the open market and the removal of price controls as some of the main conditionalities, and this time the UNIP Government implemented the measures (Mwanawina, 1993, pp. 72). Although Zambia got

a pat on the back for this bold decision, considering its strong socialist stand, the social-political consequences were damaging. The removal of subsidies in December 1986 and again in June 1990, on the staple food maize almost doubled its price and the urban dwellers on the Copperbelt and Lusaka rioted, destroying government property in the process (Hamalengwa, 1992: Mwanakatwe, 1994).

In direct response to the first riots in 1986, subsidies were maintained and Dr. Kaunda announced on both radio and television on the 1st of May 1987 that Zambia had broken off from IMF and World Bank policies and would pursue its own brand of Adjustment Reforms. Defending the decision to break away from IMF and World Bank-led policies, Dr. Kaunda simply said "We were structuring every year, gaining nothing and getting weaker and weaker" (Pagni, 1988, pp. 76).

3.2.2.4 The New Economic Recovery Programme (NERP, 1987-91)

Following the abandonment of the IMF and World Bank-led policies, Zambia initiated its own brand of structural reforms in 1987: The New Economic Recovery Programme, under the theme "development from our own resources." Whilst retaining the major IMF and World Bank Neo-Liberalist principals like reducing and finally removing subsidies and full cost recovery, it differed significantly on the basis that the new programme was based on humanism. Thus;

> (1) The role of the state, parastatals and the co-operatives (informal sector activities) took precedence over capitalist enterprise.
> (2) The rate of the Zambian Kwacha in relation to other major international currencies was removed from the local auction system, and fixed by the central bank (K 8 to 1 US $).
> (3) Interest rates were once again determined by the central bank (15 to 20 %).
> (4) Debt servicing was limited to 10% of net export earnings after deducting payments in respect of the mining, oil and fuel, Airline (IATA) and fertiliser imports.
> (5) Privatisation of state companies, whether profit or loss making was removed from the economic agenda, and more money was put into these companies (especially those with the potential to export) to reactivate them (Zambia, Republic of, 1989).

As would be expected, the IMF, the World Bank and the international Western community did not welcome this development in Zambia's economic affairs and stopped their donor support, convinced that the break away would only exacerbate Zambia's already deteriorating economic situation. The paradox, however, was that, having broken off with the international financial institutions, Zambia was able to record a sizeable positive growth rate and reduce its inflation rate, whereas it had recorded almost zero economic growth rate and raising inflation under the IMF and the World Bank-led policies (Zambia, Republic of, 1992). This positive macro-economic record did not, however, win a reprieve from the IMF, the World Bank and the Western

Community, whose continued withdrawal of donor assistance finally led to the collapse of the UNIP Government.

3.2.3 Social factors

The main social factor that contributed significantly to Zambia's economic and construction boom was the rapid (and mainly urban) population growth rate. This was caused by the abolition of the colonial pass laws which accelerated rural-urban migration, thus increasing Government budget spending on urban social services.

3.2.3.1 Abolition of the pass laws and the resultant rapid rural-urban migration

At independence the restrictions on the movement of people were lifted, through article 24 of the new Republican Constitution which stated that "No person shall be deprived of his/her freedom of movement." Today Zambia is one of the most urbanised countries in Sub Saharan Africa, with about 50% of its total population living in urban areas. This urban phenomena is, however, very recent compared to most other Third World countries. It is, however, difficult to give precise figures of pre-independence African population in the urban areas because the first African census only took place in 1963 on the eve of independence. During the colonial era, the rural exodus was contained by pass laws, which initially only allowed single men in wage labour and, only later on, their families in urban areas. African men were given short term employment contracts in the urban areas and were thus expected to return to their native areas (sic) after their contracts expired. These short term contracts thus led to circular migration as men were always moving to and from the rural areas to urban areas. Circular labour migration meant that miners returning to their villages went with consumer goods like radios and bicycles which then enticed more villagers to work in the urban areas, especially the Copperbelt towns (Mashamba, 1990).

3.2.3.2 Urban population boom

Most of the urban growth took place in Lusaka and the Copperbelt towns. Lusaka alone is recorded to have been growing at the rate of 13% annually and Copperbelt towns grew at rates of about 7% or over, except for Luanshya, Chililabombwe and Mufulira, between 1963 and 1969. But the rates slowed down during the period between 1969-1974, when Lusaka's rate dropped down to 8..9% and that of the Copperbelt towns averaged about 5% (Central Statistical Office, 1974). In total, the Copperbelt province had a net gain of 183,000 persons and Central province 129,000 (see tables 3.1 and 3.2).

Note also that the overwhelming increase in urban female population of 93.0% between 1963 and 1968, was largely due to the lifting of travel restriction in 1964 imposed on women from rural areas to urban areas in the colonial era. Whereas men were allowed to leave their native rural

areas for the urban areas in search of work, provided they obtained a travel pass, women were not allowed. With the attainment of independence in 1964, the new government lifted these travel restrictions and most women were able to join their husbands in the urban areas, hence the high percentage increase in women population in table 3.1 (Simons, 1976, 12). The influx of rural women to urban areas proved to be of great benefit when it came to building informal housing in the squatter settlements, as most of them had brought with them building skills from the villages. It is important to mention, however, that there has been no recorded research to show that Zambian women contribute significant to house building in urban areas. Schlyter and Schlyter (1979, p. 115) did, nevertheless, state that mud bricks in the George upgrading scheme in Lusaka were "often produced by women in the household". They did not, however, give figures of this prevalence.

Table 3.1 Distribution of the increase in the urban population during 1963-1969 by province and the percentage in the urban population during 1963-1969 in the province.

	Proportion of urban population increase during 1963-1969		**Percentage increase in the urban population during 1963-1969**	
Province	**Males**	**females**	**males**	**females**
Central	27.6	25.9	67.5	93.0
Copperbelt	65.0	65.8	51.6	77.5
Eastern	1.1	1.3	51.5	88.5
Luapula	0.9	1.0	60.4	106.6
North-western	-	-	-	-
Northern	0.4	0.7	21.9	58.3
Southern	3.4	4.0	27.5	49.8
Western	1.6	1.3	134.7	161.5
TOTAL	100	100		

Source: Central Statistical Office, 1963 and 1969.

Table 3.2 Distribution and growth of Zambian towns 1963-74

TOWN	1963 Population	1969 Population	1974 Population	1963-69 % increase	1969-74 % increase
Lusaka	123,510	262,425	401,000	13.4	8.9
Kitwe	123,027	199,798	251,000	8.4	4.7
Ndola	92,691	159,786	229,000	9.5	7.5
Mufulira	80,609	107,802	136,000	5.0	4.8
Chingola	59,517	103,292	134,000	9.6	5.3
Luanshya	75,332	96,282	121,000	4.2	4.7
Kabwe	39,522	65,974	98,000	9.4	8.2
Livingstone	33,026	45,243	58,000	5.3	5.1
Chililabombwe	34,165	44,862	56,000	4.7	4.5
Kalulushi	21,303	32,272	41,000	7.2	4.9
Kafue	2,043	12,500	19,625	35.5	9.4
Kasama	6,737	8,924	16,412	4.8	13.0
Chipata	8,527	13,500	16,585	8.0	4.2
Mongu	4,279	10,107	11,859	15.4	3.3
Mazabuka	5,406	6,274	10,869	2.5	11.6
Choma	6,940	11,949	10,413	9.5	-2.7
Mbala	3,644	5,282	7,611	6.4	7.6
Mansa	5,228	9,012	7,937	9.5	-2.6
Monze	3,238	4,181	5,131	4.4	4.0
Samfya	4,161	5,656	5,722	5.2	0.2
Serenje	3,112	4,241	4,498	5.3	1.2
Kalomo	4,989	6,565	4,697	4.8	-6.9
Isoka	3,361	4,545	3,556	5.2	-5.0
Kawambwa	6,180	8,318	2,762	5.1	-15.
TOTALS	**705,897**	**1,230,882**	**1,652,677**	**9.7**	**6.1**

Source: Central Statistical Office, 1975

Amid this massive increase in urban population there was no corresponding increase in the formal housing stock in the urban areas. Roberts (1978) notes that the only solution the local Authorities seemed to have was the provision of convention houses. At best they constructed 5,000 to 6,000 houses per year, a drop in the ocean considering the numbers of unhoused people. The informal settlements thus became the only refugee for the thousands of migrants who could not get a council house. It is, therefore, not surprising that, within 7 years, the percentage of these informal settlement household grew from 16% in 1963 to 35% in 1970 and to about 42% in 1972 in Lusaka. The situation was no different in Kitwe, where for example, in 1975 Tipple (1976, p.168) found that the City had a short-fall of 23,000 low cost housing stock, resulting in the proliferation of 46 illegal settlements. At the national level by 1974, self-help housing was making a significant impact, when 30% of the urban housing stock consisted of squatter dwellings and another 7% consisted of site and service units (Robertson, 1975).

3.2.3.3 Government mass housing programme

Initially government housing policy in reaction to this massive rural-urban migration and high growth rate was to try and house its citizens in 'good and high standard' conventional houses with all the basic amenities of water, water-closet toilet and electricity (Mashamba, 1990). But other pressing economic considerations like UDI in Rhodesia and the sheer numbers of urban dwellers waiting to be housed, "forced" government to abandon this approach and consider the relatively cheap alternative of squatter upgrading, full site and service, and later the basic site and service [where only the basic amenities were provided, no sanitation was provided by the council and tenants were expected to dig their own pit latrines, whereas roads were not tarred] (Tipple, 1979, p. 160). It was, however, still the wish of government to provide its citizens with a good housing environment. The subject of squatter-upgrading and site and service has been too widely covered by Richard Martin (1974; 1975; 1978: 1982); Rakodi (1980); Tipple (1976: 1979) and Schlyter (1979; 1984; 1987) to justify detailed coverage here, however, a brief summary is presented below.

The Lusaka Squatter upgrading, site and service schemes started in 1974, with the collaboration among the Lusaka City Council (LCC), The National Housing Authority (NHA) and the World Bank. The scheme covered upgrading in Lusaka's major squatter settlements: Chawama, George, Chaisa and Chipata, serviced plots in the adjacent overspill areas and some new serviced site and service plots (Martin, 1976). The major achievement of this scheme was that it covered and benefited about 40% of Lusaka's urban population which was then only 401,100. In all, the scheme managed to provide services to 17,000 households in squatter settlements, 7,600 serviced plots in adjacent overspill areas, 3,200 new fully serviced site and service plots [individual water and sewer connections] and a further 1,200 plots with basic services [Communal water supply and pit latrine connections] (Rakodi, 1980, p. 3). The failure of this scheme, however, came with the failure by the benefiting occupants to pay the monthly ground rents and service charges, which meant that the improved services could not be maintained in the long run nor could the scheme be replicated to other sites or major towns (Bamberger *et al*, 1982).

Table 3.3 Estimated informal household population in the three cities in the 1970s

City	1969 Squatters	1971 Squatters	1974 Squatters	% of Squatters in 1974	Upgraded squatter units	Site and service plots
Lusaka	80,000	100,000	189,000	47	17,000	7,908*
Ndola	23,000	26,591	51,000	22	N/A	5,227*
Kitwe	10,541	16,500	60,000	21	N/A	2,595*

Source: World bank 1976a, p. 23 with additions from Tipple 1979, p. 160.*

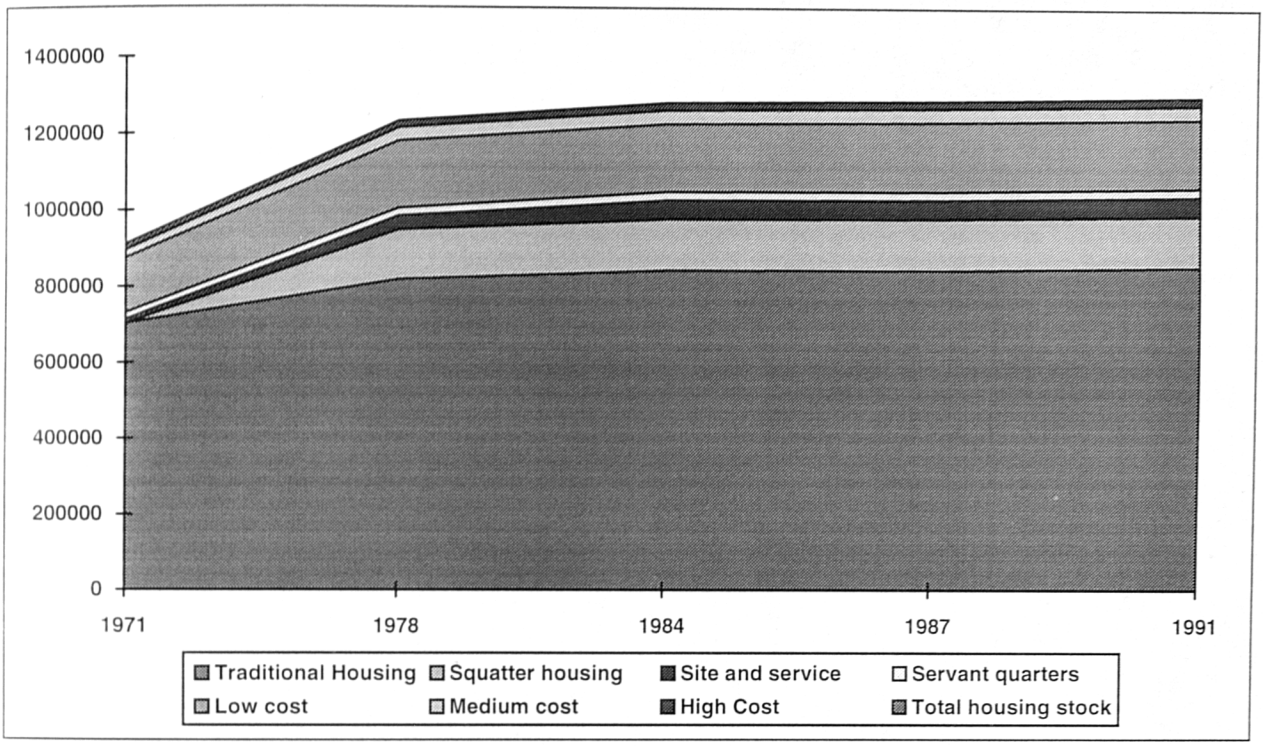
Having failed to replicate the system to other townships within Lusaka and to other two cities, the Squatter-upgrading scheme was abandoned in the late 1970's and early 1980s. Even the basic site and service plots, were never actively supported by the government in the early 1980s (Mashamba, 1990, p.53). This notwithstanding, the squatter upgrading scheme and the site and service schemes were the only successful urban mass housing schemes undertaken by the Zambian Government (see tables 3.3 and figure 3.4).

Continued tying of housing to employment meant that the Government was spending huge amounts of money on civil servants housing, which was by no means of low standards, hence expensive. Civil servants contribution to the rent was a mere 12.5% of their monthly income irrespective of the income or the house they were occupying. The net result was Government housing subsidies to its employees, which unfortunately tended to give more subsidies to the top civil servants and less to those at the bottom, hence defeating the intended purpose of helping the less privileged rather than the better off. Those that could not be accommodated were given a housing allowance of about 30% of their income. This practice was replicated in Parastatal companies and private companies as the requirement was enshrined in the Employment Act.

The immediate effect was to take away the incentive from able bodied citizens to build their own houses because they were guaranteed a house as long as they were in full employment. Rent control was one other reason that discouraged private entrepreneurs from building for rent, let alone for sale as "capitalist tendencies" were time and again denounced by the president.

> To a humanist there is nothing wrong in owning some property. What is important in this is; how is that property accumulated and used...The profit motive taken to excess leads us to the road of capitalism (Kaunda, 1969c, p. 35).

Fig. 3.4 Zambia Housing Stock 1971 to 1991



NB. Housing data for some years is not available

Source: Various NHA annual reports and Government development plans

3.2.3.4 The resultant social services programme

The UNIP government scored very highly in the areas of education and health provision as can been seen from tables 3.4 and 3.5, considering that these facilities were provided free of charge (non-fee paying). The quotation below summaries well the achievement of the UNIP government, although it exaggerates by claiming that the UNIP government began from almost nothing, when it is clear that the British Colonialist left some infrastructure on which the UNIP Government built.

> We began from almost nothing to build new institutions and infrastructures, evolving one of the relatively best managed civil administration in Africa in less than 10 years...We managed in 10 years to fly our own jets and we had aeronautical, mining, civil, and all types of engineers of international standing born out of our progressive education policies. There is currently no area where we do not have skilled manpower...We freed medical services to all and built at least one provincial hospital in each Province. Child mortality dropped, life expectancy increased and the population doubled... Kapembe Nsingo: Zambia's Ambassador to the European Union (The Courier, No. 111, Sept.-Oct. 1988, p. 79).

The adoption of the non-fee-paying social services (the welfare state) like education and health and the controlled rents for housing as guided by the philosophy of Humanism meant that the Government was heavily subsidising all social services in the country. But as most literature has shown, the number of both primary and secondary schools more than doubled, clinics and hospitals were increased and a number of mass housing programmes were commissioned and successfully completed. The building of very high standard housing and roads meant that relatively fewer buildings and roads were built than would have otherwise have been built had the Government adopted appropriate construction standards (Zambia, Republic of, 1966, p. 47).

Table 3.4 Student enrolments, 1964-1991

Educational level	1964	1974	1982	1991
Primary	378,600	858,191	1,121,769	1,409,848
Secondary	13,900	65,764	104,859	144,108
Teacher training	1,500	2,900	3,343	4,605
Adult education	2,700	59,974	19,663	40,000
Technical and Trades Training Institutions	800	5,666	5,668*	4,181*
University of Zambia	Nil	2,612	4,088*	5,229*
Total	**397,500**	**995,107**	**1,259,390**	**1,607,971**

the dramatic fall and rise, is attributed to the integration of the Zambia Institute of Technology to Copperbelt University in 1988

Source: Burdette, 1988, p. 67 with additions from Government development (TNDP) and The Economic report 1991", 1992.

Table 3.5 Number of Medical facilities in Zambia, 1964 -1991

Health centre	1964	1976	1982	1989*	1991*
Hospitals (Total)	**48**	**81**	**81**	**82**	**82**
Government	19	42	42	N/A	N/A
Mission	19	11	11	N/A	N/A
Private(mainly Mine owned)*	10	28	28	N/A	N/A
Health centres and clinics	**306**	**657**	**779**	**923**	**942**
Government	187	388	512	N/A	N/A
Mission	63	73	65	N/A	N/A
Urban/Dept/Industrial	39	138	135	N/A	N/A
Mines/Other clinics	17	58	76	N/A	N/A
Total	**354**	**738**	**860**	**1005**	**1024**

Source: Burdette, 1988, p. 68 (*with additions) from the "Economic report 1991", 1992, p. 59

3.3.0 The construction industry in Zambia

Having looked at the political and the socio-economic factors that shaped Zambia's development strategies in the First (1964-1972) and Second (1973-1991) Republics, let us now concentrate on

the net effects that all the above political and socio-economic factors had on the construction industry.

3.3.1 The boom period of 1964 to 1974

The late 1960's and early 1970's was the boom period for the Zambian construction industry. The construction boom was chiefly because of the socio-economic and political environment prevailing at the time, rather than deliberate Government construction policy. Past Zambian government policy objectives and achievement levels were always outlined in development plans, so that a quick look at these plans should reveal the trend in the construction industry over the years. Immediately after independence, the government initiated the transitional development plan which covered the period 1st January 1965 to the 30th June 1966 (18 months). During this period the initial focus was on military and education projects (Republic of Zambia, 1965, p. 6). Construction expenditure for the Ministry of Defence took the form of staff housing, new barracks, new airfields for the airforce, and roads to and from the new barracks and airfields. However, precise figures and details were never made public, for even the mere possession of such details in the form of figures or photographs could lead to a severe jail sentence. In the field of education, however, much of the expenditure went into building new schools and colleges (including the University of Zambia), including staff housing.

Given the low levels of educated Zambians and hence professionals, this was to be expected. At independence in 1964, Rakodi (1986, p. 215) puts the number of Zambian construction contractors in the largest category as only one, and that from a total of 256 contractors registered with the Public Works Department (PWD) to carry out the lowest possible jobs only 26 were Zambian owned. Of the construction professional (Architects, Planners, Engineers etc.) she notes that there were only 3 Zambians from a total of 412. Without expatriates therefore, the construction industry could not function, at least not efficiently. Some writers have often cited this as being the beginning of the end of Zambia's economic boom. To fill the gap left by these expatriates, as a result of nationalisation and constant verbal attacks from the Zambian workers and the Government, a premature Zambianisation programme was initiated.

> Expatriate supervisors were completely demoralised and unwilling to exercise authority for fear of arousing the resentment of local workers and being unjustly labelled as racist, with the possible threat of deportation. Discipline therefore became lax, with consequent adverse effects on production. Zambian supervisors, on the other hand, were anxious to prove their keenness and ability to exercise their newly acquired authority. Their zeal was sometimes resented by their fellow countrymen in subordinate positions and a number of incidents occurred involving local supervisors and workers (Quinn, 1971, p. 82).

From the outset, therefore, the construction programme ran into serious problems inherent with the rest of Zambia's development problems, in that she was heavily dependent on expatriate skilled labour, foreign owned construction firms, and the Southern 'white' states of South Africa and Rhodesia for her construction materials. Nationalisation, economic sanctions on Rhodesia, and the closure of the southern routes were, therefore, decisions that were made out of political principles rather than on economic merit.

Although the immediate effects of UDI in Rhodesia was to reduce Zambia's growth rate for her economy, the long term effects were to increase the economy substantially. For example, the rate of growth in manufacturing sector fell from 31% in 1965 to 16% the following year, before it recovered back to 27 % in 1967 (Faber, 1971, pp. 318). Consequently, the gross domestic product for the construction sector grew from K20.0m in 1964, K39.0m in 1965, K79m in 1967 to K115.9m in 1968 (Bostock, 1971, 328: Christie, 1971). However, the high dependence of imported building materials from Rhodesia and South Africa, which Christie (1971, p. 379; 386) has put as about 50%, meant that the multiplier effects were not really beneficial to local industries and the economy. Unfortunately (for the housing sub-sector) most of this investment went into building Schools, Hospitals, Offices, Roads, Bridges etc. and very little formal sector housing was built for the thousands of migrants that kept coming from the rural areas.

In response to the construction boom, a number of publicly owned construction companies were formed, among them INDECO Properties (staff housing), Kafue Estates (Residential and Industrial township), Progressive Development (factory leasing), Crushed Stones Sales (Quarry Sales), Monarch-Zambia (Metal window and door frames, wire mesh, brick and block ties) Zambia Clay Industries (clay-glazed pipes and face bricks), and Chilanga Cement (cement manufacturing and sales), all under the parent Parastatal Company: INDECO. It is important to mention here that at this time the Government was merely a partner in most of these companies until Government policy in 1968, 1969 and 1970, nationalised all major industries, in line with its philosophy of humanism. Dr. Kaunda's motive in all this was to "consolidate political power with economic power for Zambians" as can be deduced by his further pronouncements which restricted the awarding of Public Works Department (PWD) contracts of less than K100,000 to Zambians only.

> A way in which the Government itself will assist Zambian contractors is that from now on Public Works Department will award contracts worth less than K100,000 only to Zambians. Again I must stress that Zambians are Zambian citizens, people with Zambian passports and green registration cards, and nothing else will be taken into account in deciding whether or not a man is a Zambian. I have talked about restricting resident expatriates businesses by making it more difficult for them to borrow money, and by keeping them out of certain geographical area and certain types of business. all

> these measures are going to create very favourable conditions for the people's business to develop (Kaunda, 1969b, p.57).

This new ruling obviously placed expatriate-owned firms at a disadvantage and as a result most of them sold out to Zambians and left the country. For a country with about only 100 graduates (with most of them being social scientists when the country really needed engineers and scientists) this had an adverse effect on the construction industry and ultimately on the rest of the economy.

While appreciating massive Government investment in the construction industry in the late 1960's, we have already seen that most of this investment went into sub-sectors other than housing. Housing was regarded as a consumption good rather than an investment venture capable of recuperating the cost and earning returns. This was typical of the thinking in socialist states, so very little investment was put into housing. For example, speaking at the socialist housing seminar in Kleve, Germany, David Barkin (Trialog, 1985, pp. 6) argued that housing is a competitor rather than a complementer of health and education in national development because the two directly increase an individual's capacity to be productive whereas housing does not. The enabling strategist would of course argue that a better housed worker is more productivity than one who is poorly housed and that any investment in housing ultimately contributes to the national economy through multiplier effects (Van Huyck, 1980; Klaassen et al, 1987).

In actual fact even the little that was put aside for housing was quickly consumed by the expensively high housing standards that were set. Without giving details, the First National Development Plan (FNDP) did admit that "high standards" and rising prices had pushed the building cost of the average house from £320 to £800 (Government of Republic of Zambia, 1966, p. 47).

Nationalisation of the private finance market in 1967 and 1968, and the restrictions of capital finance credit to Zambians only, contributed to eliminating both private and foreign investment, not only in the construction industry but also in the whole Zambian economy. As long as there was government investment in the economy, especially during the years of high copper prices and low oil prices, private and foreign investment was insignificant.

Plate 3.1 Private sector formal housing using informal sector materials and labour with public sector housing in the background in Lusaka's Chilenje South extension

The major problem for the construction industry in the late 1960's and early 1970's was not lack of investment, but the low capacity of the industry to meet government demand for infrastructure; housing, roads, bridges, factories, offices and so on. For example, during the Transitional and First National Development Plans some projects could not be implemented owing to what the government called "a shortage of construction capacity, particularly in the rural areas, the lack of certain types of skilled and professional manpower, and raw materials supply" (Zambia, Republic of, 1965; 1966).

To remedy those constraints, the government set up first the Zambia Institute of Technology (ZIT) in Kitwe for the training of technologists (Diploma level) in the field of Architecture, Quantity Surveying, Civil Engineering, Land Surveying, and Town and Country Planning among other courses. Later on, the same courses, Architecture, Quantity Surveying, and Town and Country Planning were to be offered at degree level, at the then University of Zambia at Ndola, Kitwe campus, which became Copperbelt University in 1988.

Similar efforts were also made to ameliorate the supply shortages by setting up local building materials firms. However, as was the trend then, most if not all such new companies relied on

capital intensive technologies, imported from abroad. For instance, whilst having vast resources of appropriate clays and unemployed labour for brick making, there was a tendency to promote concrete blocks, which were mostly produced by state owned companies using capital intensive technologies. This is a tendency that Chakwe (1983, p. 396) has attributed to the notion in the construction industry to associate bricks and clay tiles with the past and poverty.

Besides setting up new materials companies, the government nationalised the existing (mainly foreign owned) large private companies by buying 51% shares in them. The net result was to create state monopolies in the materials market, which Chakwe (1983, pp. 372-73) found to be lacking qualified and experienced staff, poor organisation and managerial skills, beset by nepotism, corruption, maladministration and theft. Chakwe (1983) further goes on to illustrate his point by citing a state-owned crushed stones sales company which had the monopoly in producing aggregates from local stones, but yet failed to meet increased demand for aggregates to the point that most projects were delayed.

On the other hand, however, it is interesting to note how the few remaining semi-private companies were able to favourably cope with the construction boom. Chilanga Cement, owned by the Commonwealth Development Corporation (which was to later sell 40 % shares to INDECO), was better managed than the state companies and was thus able to cope with the increased demand for its product, cement, to the point that it even started to export it to neighbouring countries and continues to do so today.

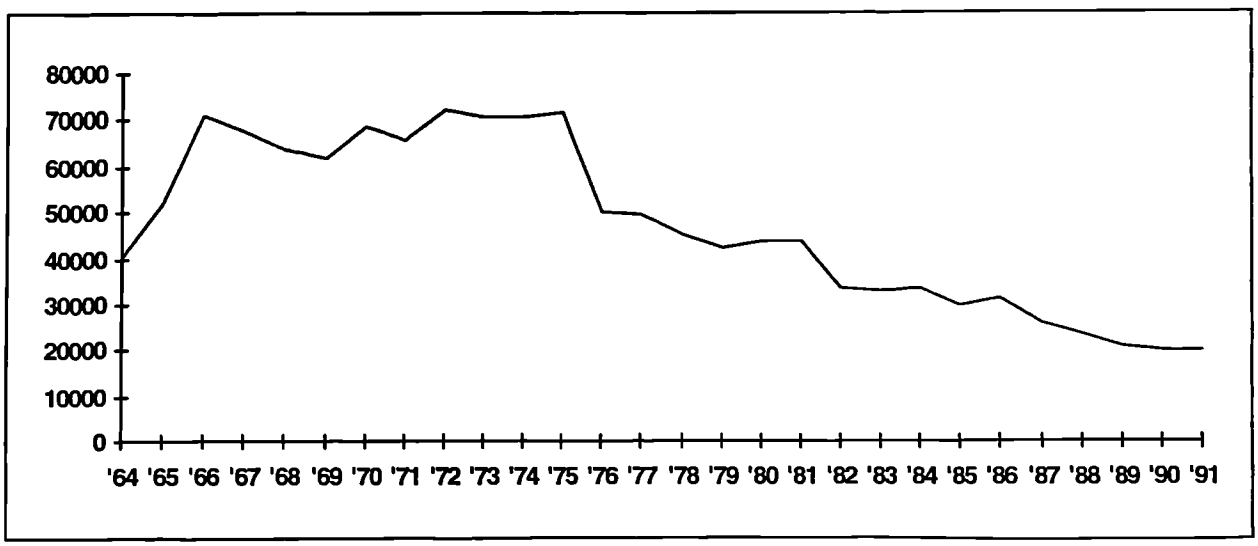
3.3.2 Construction industry in decline: from 1975 onwards

In all fairness to the Kaunda regime, the decline in the construction industry in the late 1970s (as witnessed in reduced employment levels in fig. 3.5 and the net contribution to GNP in figure 3.6), was ignited by the sudden rise in world petroleum (fuel) prices, which also happen to coincide with the fall in copper prices at the London metal exchange. The result was reduced government revenue from copper exports and reduced construction investment (see fig. 3.2). The immediate government response was to enforce strict foreign exchange regulations, promote non-mineral exports, and to curtail public expenditure, which unfortunately tended to be centred on capital expenditure and not recurrent expenditure. Strickland (1989, p. 212) has argued that this practice of cutting capital rather than recurrent expenditure ensured that government did not antagonise it power base (especially in urban areas, at least in the short term). For a construction industry solely dependent on public investment, imported construction materials and skilled expatriate labour force, this was a recipe for disaster and it did not take long to happen.

The net result was reduced public investment in construction projects; such as new schools, clinics, hospitals, roads, housing; maintenance and repairs jobs; and acute shortages of construction materials as a result of foreign exchange restrictions. The expatriate labour force was also reduced resulting in premature Zambianisation as a way of reducing the foreign exchange bill. The resultant Zambianisation that followed the mass departure of expatriate skilled labour was to further exacerbate the problems of the industry; as inefficiency, corruption, poor planning and co-ordination became the order of the day (Strickland, 1989, p.135; Chakwe, 1983, p. 343).

Rather than allow the private sector (both local and foreign) to bring in their savings and investments in the industry and the economy as a whole to supplement the dwindling public investment, the Zambian government was still very adamant with its anti-capitalist stance. To make matters even worse, the Zambian leadership code did not allow any political, military and civic leaders with the necessary savings and investment to "engage in capitalist tendencies" (building for profit). The capital market was non-existence for those willing to build but without the necessary capital to do so. Not surprisingly, there was a slow down in the industry as manifested by the decline in those employed in the construction industry.

Fig 3.5 Employment figures in the construction industry between 1964-1991



Source: Mandela, 1991, p.157; Year book of Labour statistics 1995, p. 390

Table 3.6 Construction output: 1971-1976 in Kwacha million

Year	1971	1972	1973	1974	1975	1976
(1) Planned	90.4	97.6	105.7	114.4	124.1	134.0
(2) Actual	73.6	81.5	86.8	85.1	100.9	95.7
(3) GFCF	264.5	291.0	248.5	280.0	259.0	210.0
(4) Employment	65 870	72 320	70 490	70 590	71 750	50 270
a. Public sector	-	26 880	24 500	25 390	26 610	24 940
b. Private sector	-	45 440	45 990	45 190	44 3970	29 400
(5) Buildings	-	705 000	637 000	907 000	1 011 700	1052 000

1- Planned investment during SNDP, 1969 prices in K m
2- Actual in the SNDP, 1969 prices in K m
3- Gross fixed capital formation at 1965 prices in K m
4- Employment figures for the sector- Public and private fig. for 1976 are for mid year
5- Capital expenditure for government buildings
Source: Third National Development Plan, p. 307

It is interesting to note from the table 3.6 the differences in responsiveness (elasticity) of both the public and private sectors employment figures to changes in macro-economic policy in Zambia. Whereas the adverse macro-economic environment brought about a cut back of 35% in private sector employment between 1971 and 1976, the corresponding cut back in the public sector was only 7%, resulting in a fall of 21% in gross fixed capital formation. However, what is surprising to note is that, amidst this fall in construction employment figures and GFCF, there was actually an increase of 23% in government spending in the construction industry from the 1971 figures, having reached 28.5% in 1975 before starting to fall in 1976. Two possible explanations can be advanced for this rather illogical phenomenon. First, that the resultant heavy transport costs from fuel increases increased the cost of construction and second that the acute shortage of construction materials on most sites due to foreign exchange problems meant that most projects were are at a standstill yet incurring costs (Fewings, 1991, p.32).

Inherent in all these macro-economic problems and subsequent government reaction, were the consequences of inflation, black-marketing, high interest rates, and social and political instability, which finally culminated in the lack of investor confidence in Zambia. Government's decision to reduce foreign allocation to "non essential" sectors like construction, had the net effect of reducing construction imports, which in turn raised the real costs of construction on the open market. With price controls in place at the official market, a black-market emerged which would snap up most of these materials (mainly through corrupt means) and resell at as much at 1000% profit (Fewings, 1991, p. 37). The impact of these economic problems was to discourage private sector demand for construction goods and services, thereby affecting the Zambian construction

industry, which responded by reducing its construction supply in terms of new GFCF and the total number of workers employed.

The continued downward trend of the economy and the subsequent turn to the IMF and the World Bank for assistance in the early 1980's; only enhanced calls for reduction in public spending which was slowly implemented. However, the entry of the IMF and the World Bank in the Zambian economy brought with it the promotion of the private investor. The Zambian government was given, among others, the condition to start selling off public companies; among which were consultancy, contracting, manufacturing and materials supply companies. However, the Zambia government did not honour this conditionality; none of the construction based companies was actually sold off between 1983 and 1986, and with the riots of December 1986, the IMF and World Bank policies were abandoned. In its place, Zambia came up with it's own brand of adjustment under the theme: GROWTH FROM OUR OWN RESOURCES.

3.3.2.1 The construction industry under the New Economic Recovery Programme

Although the Zambian government maintained that this was its own policy reform programme, it had a lot of IMF and World Bank Neo-Liberal principals it in, at least in construction policy terms. For instance, the Zambian government was for the first time since adopting humanism, willing to accommodate foreign investors, by allowing them to own land and to externalise their profits. Suffice to say that foreign investors were only to be allowed on projects that required huge capital investment which Zambians would have difficulties in raising; roads, dams and so on (Zambia, Republic of, 1988, pp. 219 and 220). However, the government made no mention of encouraging local private investment in the construction industry, nor were there any signs that government would sell off its shares in the publicly owned construction companies, either to local or foreign private companies or individuals. Its strategy of encouraging private investment was by encouraging informal sector participation in the construction industry, through organisations like the Small Industries Development Organisation (SIDO). As in the enablement approach, the idea was to promote labour intensive construction projects that would stimulate employment opportunities. The fallacy of this scheme, however, was that it relied heavily on government financial assistance, hence defeating the intended purpose of easing pressure on government capital expenditure.

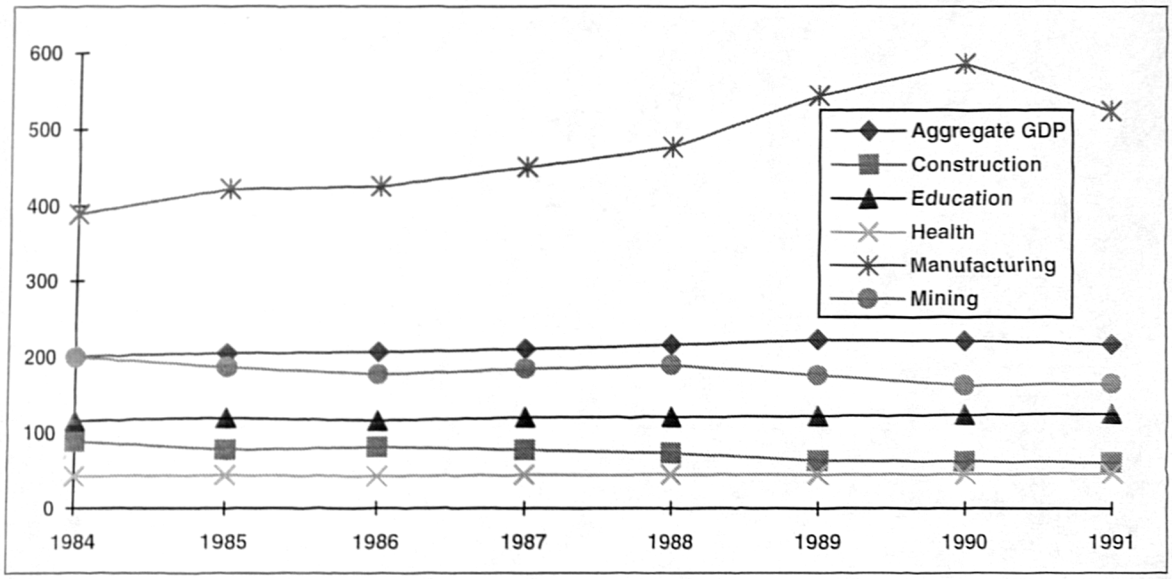
The other major flaw in the construction policy strategy was the dependence on foreign financial inflows (despite the rhetoric; development from our own resources) that, with the breaking of relations with the IMF and World Bank, this flow of funds immediately came to a halt and the industry was reduced to mere emergency maintenance of existing infrastructure and the policy/strategy collapsed overnight in 1989 (see table 3.7 below).

Table 3.7 Gross Domestic Product by kind of economic activity: at constant (1977) prices. [K million]

Economic Activity	1984	1985	1986	1987	1988	1989	1990	1991
Aggregate GDP	2 011.5	2 044.5	2 059.3	2 105.6	2 161.8	2224.2	2213.6	2174.4
Agriculture	332.2	343.8	373.8	365.6	389.1	379.0	339.7	361.4
Construction	**88.6**	**77.1**	**81.1**	**77.3**	**73.7**	**63.3**	**62.6**	**61.8**
Education	115.8	119.1	115.7	120.0	120.7	121.5	123.9	126.0
Electricity	70.9	72.7	71.1	62.7	64.9	49.9	58.8	63.8
Financial Institutions & Insurance	62.5	60.6	56.8	54.5	57.2	52.9	53.8	54.7
Health	42.9	44.1	42.9	44.4	44.7	45.0	45.9	46.7
Hotels, Bars & Restaurants	49.0	51.3	46.8	46.6	46.0	46.2	54.2	54.3
Import Duties	18.0	19.9	22.5	24.6	24.3	17.0	15.9	14.5
Manufacturing	389.3	421.6	425.3	450.0	476.8	544.1	586.7	524.3
Mining	200.0	185.8	176.5	184.2	189.1	175.6	162.7	165.5
Other Community Services	44.1	61.2	62.0	64.6	64.8	64.9	64.6	65.4
Public Administration & Defence	137.4	141.3	137.3	142.2	143.2	144.2	147.1	149.5
Real Estates & Business Services	179.5	179.0	178.6	189.1	191.8	192.7	182.7	178.1
Transport & Communications	116.2	109.2	110.1	113.5	111.4	110.2	102.1	97.1
Wholesale & Retail	167.9	174.7	174.6	181.5	180.0	186.8	180.7	181.1
Less imputed Banking Service Charges	17.5	16.8	15.8	15.2	15.9	14.6	14.8	15.1
GDP Growth rates %	1.6	0.7	2.2	2.7	6.3	-1.0	-0.5	-1.8

Source: Fourth National Development Plan (FNDP), 1989, p.10: Economic report -1991, 1992, p. 22

Fig. 3.6 Construction output in-relation to major economic indicators 1984-1991



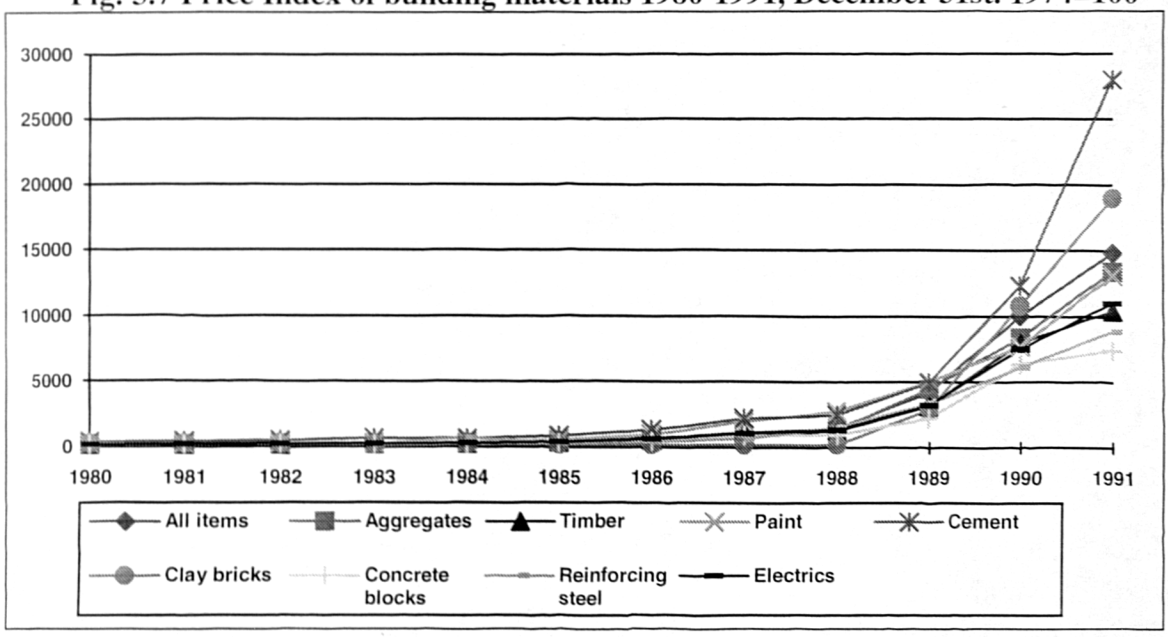
Drawn from data in Table 3.7 above (Note: Multiply Agg. GNP by 10 to get the true figure)

Table 3.7 above clearly illustrates that the objectives and priorities of the government during and after the IMF and World Bank-led policies were in agriculture, manufacturing, health and education. The period 1983-1986 (the IMF and World Bank led policies) the percentage change

in GDP as a contribution from the construction industry initially dropped by 13 % in 1984 before picking up by 5% in 1986, but with the breaking off of relations in 1987 this figure dropped to -4.7% and again by the same rate (-4.7 %) in 1988. The real value of the construction sector further declined at an annual rate of 5.3 % between 1987 and 1991: when the new MMD government was ushered in (Zambia, Republic of 1991, p. 23). This only goes to illustrate the importance of donor funding in capital expenditure and the effect the abandonment of the IMF and World Bank-led policies had on the Zambian construction industry, which seems to have started picking up just before the Zambian government relented on IMF and World Bank Neo-Liberalist economic policies. It is also important to relate the close linkage between the performance of the copper mining and the construction through figure 3.6 which show that the two industries closely following the same trends. Note also that figure 3.6 shows that in the late 1980s, increased productive in the manufacturing industry did not result in a corresponding increase in the construction industry.

However, what is interesting to note is that whilst the four macro-economic indicators relating to agriculture, manufacturing, education and health, all performed very under the Zambia's own economic policy after 1987 rather than under the IMF and World Bank initiated policies, this was not transformed into construction gains as it was in the 1960s and 1970s. This suggests, therefore, that most of this money went into recurrent expenditure like salaries and wages or towards offsetting inflation, rather than on maintenance or new infrastructure, i.e., roads, factories, schools, staff housing, hospitals, and clinics.

Fig. 3.7 Price Index of building materials 1980-1991, December 31st. 1974=100



NB. 1991 figures are mid year figures (i.e. June 1991)

Drawn from data in Central Statistical Office, 1991, p.59

Plate 3.2 Abandoned public sector housing in Lusaka: Chilenje South houses and flats

Plate 3.3 Unfinished office block in Lusaka, started in 1986 still unfinished in 1997

In analysing present day policies and when making new proposals, it is important to recognise and appreciate the efforts that the UNIP Government put forward in trying to salvage the industry and to note its key strengths and weaknesses. For example, the UNIP government drew up good criteria tables (Tables 3.8 and 3.9) for screening and prioritising projects. Although the 4th NDP and more especially the construction policy part of it was never successfully carried out[1], the policy proposal shows that the government was slowly realising the importance and role of the construction industry in national development.

Table 3.8 Criteria for prioritising construction projects

TYPE OF PROJECT	WEIGHT (%)
1. Low cost housing projects	30.0
2. Development of local construction materials and inputs	27.5
3. Research, design and standards	17.5
4. Rural housing schemes	13.7
5. Provision of serviced land	11.3
TOTAL	**100.0**

Table 3.9 General criteria for screening projects

General criteria	Weigh (%)
1. Projects with a higher multiplier effect on the rest of the economy	10.0
2. Manpower development	8.0
3. Projects with short gestation period	7.8
4. Projects which substitute imports using local raw materials	7.7
5. Projects promoting non-traditional exports	7.6
6. Projects with forward and backward linkages	7.5
7. Projects using local raw materials	7.3
8. Government revenue generating projects	7.1
9. Employment generating projects	6.6
10. Labour intensive projects	6.3
11. Projects satisfying basic needs	6.2
12. Projects with a high internal rate of return	5.1
13. Projects promoting balanced economic development	4.2
14. Cost effectiveness	3.5
15. Projects nearing completion	3.0
16. Loans for maintenance of capital stock	1.5
17. Externally aided projects with cross conditionalities	0.6
18. Externally aided projects which impose policy reforms	0.0
TOTAL	100.0

Source: Tables 3.9 and 3.10, Zambia, republic of, 1989

Continued negative economic growth in the late 1970's, balance of payments problems and the urban economic discontent, which 'forced' the self proclaimed socialist/humanist state to turn to

[1] The 4th NDP was planned for the period 1989-1993, but the UNIP government lost the 1991 elections.

the World Bank and the IMF, further alienated the government from socialism and aligned to capitalism, as the conditions of IMF assistance (loans) demanded. The 1990 Lusaka riots eventually degenerated into a short-lived time coup by a section of the army, after which President Kaunda decided to allow multi-party politics and the following year of October 1991 he lost the elections to the new government. These events have thus led to the theory that Kaunda's downfall was caused by his following of the IMF and World Bank policies of removing subsidies and bring in market prices (Hamalengwa, 1992; Mwanakatwe, 1994). However, the irony to this theory is that the new government is more pro-IMF and World Bank policy-oriented than the Kaunda government.

3.4.0 The MMD Government and the Third Republic (1991-1996)

Following, the abolition of the one party state by the then UNIP government in 1990, the pressure group calling for multi-party politics formed itself into one "united" political party: the Movement for Multi-party Democracy (MMD). This was a coalition mostly of academics, trade unionist and. politicians who, besides calling for the restoration of multi-party politics, also wanted the Zambian capitalist economy and human rights record restored.

3.4.1 The MMD Development strategy: Adjustment and enablement

General elections were set for October 1991, and the new MMD party campaigned on the platform of restoring the economy based on "the Neo-Liberalist economic principal of ENABLEMENT." In the party manifesto (section 3. a) the new party committed itself to creating an enabling environment;

> The MMD is determined to bring about a new era of opportunity of economic policy realism which rewards and motivates individual initiative. The MMD is committed to the creation of a stable economic environment by pursuing positive macro and micro economic policies.
> The MMD is committed to creating an enabling environment for economic development in Zambia by implementing a balanced structural adjustment programme specifically suited to Zambian conditions.
> In order to bring about a suitable climate in which both the private sector and the public sector will flourish, the MMD will formulate and implement suitable monetary and fiscal policies; create a positive system of administering investment incentive schemes; abolish monopolies and provide a free market system; ensure free collective bargaining, institute market determined allocation policies; stimulate positive growth-oriented international trade policies; mobilise domestic savings and develop a capital market; and rationalise government regulatory measures (MMD, 1991, pp. 6).

3.4.2 New housing strategy: The Enabling Shelter Strategy

The MMD party manifesto (3. n) promised the Zambian people the following;

> The MMD government shall create an appropriate fund by creating marketable instruments to attract long-term investments from pension schemes and other long-term sources of funds to finance the housing programme. Appropriate rules and standards will be set to govern the type and quality of housing for any specified area of habitation (MMD, 1991, pp. 7).

It is important to note here that the MMD had already committed itself to Neo-liberal economic policies well before they entered government and were not, therefore, enticed by the International Financial Institutions like the IMF or the World Bank. Another striking feature of the MMD manifesto is in the fact that the macro-economic and housing programmes reflect the views of the international financial institutions- the IMF and the World Bank, although the MMD was still talking of squatter upgrading, controlling the mushrooming of squatter settlements and the attainment of high housing standards as their primary housing goals. Since taking office, however, the MMD government has tended to follow the World Bank's Enabling Shelter Strategy.

Summary

With hindsight, it is easy to criticise Zambia's nationalisation policies of private companies and property, and argue that this policy should not have been carried out in the first place. But as this chapter has attempted to show, the circumstances at the time, especially the Southern African political environment of the time, necessitated that line of policy action. The industrial and administrative power base of Zambia was still in the hands of white settlers who, with UDI and the Southern African security conflict were not easy to trust, hence the need to transfer the power base to indigenous Zambians. It is equally important to understand also that in the 1960's national development strategies in most Third World countries and even some developed countries like Britain were heavily biased towards rapid industrialisation and nationalisation of private property (Todaro, 1977).

We have seen that, although Zambia was able to record unprecedented high growth rates in the construction industry and the macro-economy in the late 1960's and early 1970's, these high growth rates came to a halt and started a downward trend in 1975. Among the reasons for this downward trend was the growing tendency by the President to appoint defeated and retired politicians to top management positions in the newly established state companies like the Zambia State Insurance Corporation and the Zambia Building Society. The net effect on the economy was reduced productivity. Whereas Zambia was earning more money from copper than the economy could absorb, the rapid and premature Zambianisation, and increased labour cost due to rapid rises in wages encouraged industries to use capital-intensive techniques. For example, although the economy was able to create over 100,000 jobs between 1966 and 1969, inflation due to

increased wages, the use of high capital-intensive techniques and the very high rates of rural-urban migration still caused unemployment problems in the country (Pettman, 1974, p. 142-145).

We can summarise factors that contributed to the downfall of the economy and consequently the construction industry to the following;

- The high rural-urban migration that followed immediately after independence and increased the urban population in some towns by as much as 100% in just 10 years. This had the effect of stretching government resources in areas like schools, clinics/hospitals and housing, which were provided either at subsidised rates or free of charge;
- The maintaining of controlled foreign exchange rates by the Government which were kept at relatively high rates in relation to international currencies, thereby promoting imports, capital intensive construction and manufacturing methods and unemployment in the country;
- The protection of local and mainly state monopoly companies and industries by the Government also gave these same companies a false sense of sustainability and as a result there was no incentive for them to reduce prices or the cost of production. The tendency was, therefore, towards subsiding consumption rather than production;
- The withholding of business loans to foreign based companies and foreigners also destroyed the existing foreign well established companies and entrepreneurship, resulting in most of these skilled foreigners leaving the country;
- The introduction of rapid and premature Zambianisation against a backdrop of only 100 university graduates also meant reduced productivity and efficiency as most Zambians that took over from expatriates were not qualified for these jobs.
- The constant attacks on capitalist tendencies meant that even Zambians with savings could not openly invest their money in the local economy and thus they opted to invest outside the country. Foreign investors were also reluctant to invest in the country following the mass nationalisation of private foreign companies during the 1968, 1969 and 1970 economic reforms programme.

We also noted the close relationship between the Zambian copper mining industry and its the net effect on the construction industry. Figure 3.6 shows that in times of low mineral revenue and low GNP from the copper mining industry, the contribution industry also records low levels of net contribution to total GNP. This therefore, shows that the copper mining industry is one of key determinants of the performance of the construction industry.

Beginning in the next chapter, we shall look at the measures that the new MMD government has taken to arrest the above situation and thereby assess the impact these measures are having on the construction industry and the macro-economy.

4.0.0. CHAPTER FOUR: CREATING AN ENABLING ENVIRONMENT

4.1.0. Introduction

Having outlined our research aims, objectives and approach, and the detailed steps that we took in conducting the field work in chapter one (of Part One), in Part Two we now began to analyse our field and secondary data. We begin our field analysis with chapter Four, in which we critically look at the various measures and legislation that has been taken and passed by the Zambian government in the last five years, in an effort to "create an enabling environment", especially in the construction industry. The prime motive in creating an enabling environment is to encourage both private local and foreign investors to invest in the Zambian economy, thereby stimulating private sector construction demand. However, as the Zambian government itself will be quick to admit, some of the so called "enabling legislation" have had a negative effect on the Zambian economy and the construction market in particular. Some investors have been put off in their plans to invest in the Zambian economy, whilst others have taken on the challenge, but only to shy away from the construction industry altogether. On the other hand, some of this enabling legislation has attained its desired aims and objectives on the macro-level and the micro-level, i.e., the construction market.

In this chapter, we also set the context of the changes that have been made to the Zambian construction industry in the areas of structural, fiscal and monetary matters, within the overall framework of the Structural Adjustment Programme (SAP) and the affiliated policy of Shelter Enablement. Having said that, it must be recognised that enabling legislation is formulated with the macro-economy in mind and it is, therefore, up to the construction industry to take advantage of this legislation to enhance itself. Shelter or construction issues can no longer be seen and tackled as unique issues in themselves, they must be tackled in association with other national matters: economic, social and political matters (World Bank, 1993).

4.2.0 National Policy on the Construction Industry (NPCI)

In view of the socio-economic changes brought about with the change of government and development strategy in 1991, a new construction policy was initiated. This involved proposals from various individuals and institutions, through the Ministry of Works and supply in formulating a National Policy on the Construction Industry (NPCI) in Zambia. The NPCI document was finally presented and accepted by the Zambian Government in 1995. In recognising the socio-economic changes made by the new MMD government, the NPCI draws attention to the crucial role to be played by the private sector in the construction industry by stating in its preamble that:

> The Government has adopted strategies that aim at promoting a market economy where private sector initiative would act as the engine of growth. In the new

> scenario, the role of the ministry of Works and Supply is largely that of facilitating development of the construction industry in conjunction with other stakeholders. Since the policy direction is one of encouraging the development of the sector through free market-led economic principles, the private sector will have to play a leading roles. The new role of the ministry is merely to create an enabling environment in which other partners should be able to function fully (National Policy on Construction Industry: Ministry of Works and Supply, 1995, p. ii).

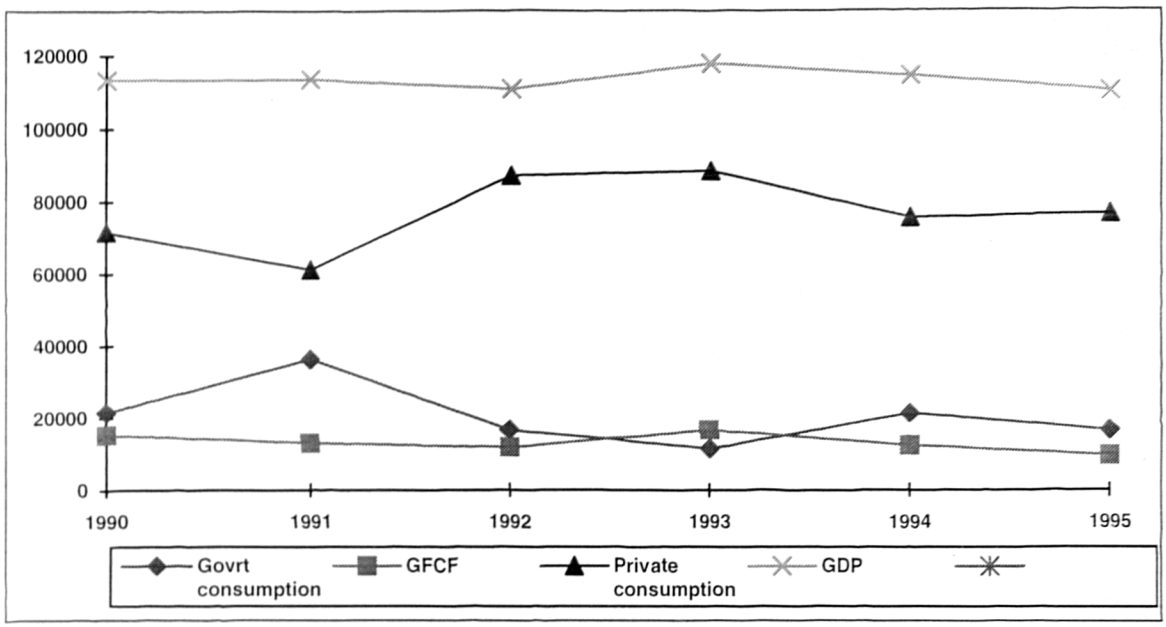
To achieve the above aim, the NPCI document goes further to set the overall objectives of the Zambian construction industry as that of:

1. Promoting and developing private sector participation in the construction industry;
2. Providing incentives for investment in equipment for the development of infrastructure in the construction industry;
3. Developing and promoting appropriate construction standards and regulation;
4. Promoting the use of low construction materials;
5. Creating employment and contributing to the balance of payments; and
5. Developing and promoting appropriate, sustainable and environmentally friendly infrastructure.

Although the NPCI proposes the creation of a National Council for Construction to monitor developments in the industry, i.e., review, modify standards, legislation and regulations, the government has yet to set up the proposed Council. It is no wonder that since the adoption of the NPCI, nothing has been heard or said on the new construction policy in the country. There has, nevertheless, been a marked increase in private sector consumption in the Zambian economy in the last five years, amid a decline in government consumption. Unfortunately, the increase in private consumption has not translated into an increase of Gross Fixed Capital Formation (GFCF). The GFCF has continued to fall, although there was a slight increase between 1992 and 1993. Calculated at constant 1990 prices, the country has witnessed a 40% drop in GFCF between 1990 and 1995 (see fig. 4.1 below). What is more worrying about this reduction in infrastructure investment is that it is taking place amidst an increase in population of about 16% during the same period[1]. As a percentage of GNP, GFCF has thus been reduced from 13.42% in 1990 to 8.56% in 1995. This reduction in GFCF is an indication of the low levels of construction activities taking place in Zambia, after the application of both SAP and the Enabling Shelter Strategy. It is important to note from chapter three, however, that the downward trend in construction activities started well before the two aforementioned strategies were applied in Zambia, although their application seem to have failed to arrest that trend.

[1]Based on populations estimates from the International Financial statistics, 1997, p.738.

Fig. 4.1 GFCF, government and private consumption between 1990 and 1995 (at 1990 prices in millions of Kwacha)



Source: International Financial Statistics March 1997, p. 738 (Adjusted to 1990 prices)

4.3.0 Housing and Local Government Ministry reforms

In the shelter sub-market, the MMD government restructured and renamed the then Ministry of Decentralisation as the Ministry of Local Government and Housing. Although no major restructuring was done within the ministry itself, the operation system of the local government was changed drastically. Hitherto, local government administration in Zambia had been based on the one party political structure, whereby all elected councillors belonged to the ruling and only party- UNIP, with District Governor (replacing the traditional Mayor) appointed by the President. The Mayor has replaced the District Governor in the Third Republic. Plans are also under way to have a Mayor directly elected by the electorate, rather than is the case now where the Mayor is elected from among the councillors by the councillors themselves.

The direct impact of the former Local Government administrative structure on the construction market was the tendency for Local Councils to make political decisions at the expense of economic and social development. For example, when setting rent and rate charges, the councillors under the leadership of the District Governor always made sure that party members were appeased to win votes, rather than set realistic and economic rates and rents that took into account the level and type of service that the councils were giving to the residents (Mashamba, 1990). The decision, therefore, in 1991 to return to the traditional British form of Local Government was based on the understanding that this new local administrative structure would

bring back professionalism and local accountability to the local councils and, in the process, sustain local development.

Under a K5.8bn ($5.8m) agreement with the United Nations Development Programme (UNDP), efforts have already been made to train and retrain Local Government staff in the light of the new Local Government administrative structure and operations (Public Sector Reform Programme-PSRP). Unfortunately, however, politicians continue to play party politics at the expense of local development and long term sustainabilty. Only recently (January 1996) in Mufulira, a copper mining town on the Copperbelt, the Mayor and some of his councillors were suspended from the Party by their local branch for increasing water charges and house rents in the township. After bitter disagreements at which blows were even exchanged in the council chamber, the proposed increases were reversed. This reversion in charges was made against a backdrop of rapid increases in the cost of imported water treatment chemicals (due to the falling rate of the Zambian Kwacha), increases in the cost of house maintenance and the inability of the council to pay its workers for months. In the minds of the Mufulira MMD party hierarchy, however, increasing water charges and house rents in an election year would have made the ruling party very unpopular with the voters and thus cost them votes (Times of Zambia, 17/2/96).

The full implementation of the concept of economic rent, as a way of boosting the financial standing of the councils, is not only being resisted by the local Government politicians but also by Central Government. Whereas Government has recognised that rent control and subsidised service charges are detrimental to increasing housing production and the standard of services offered, the Government has not completely given the Local Councils the autonomy needed in setting realistic charges. Although there has been an average increase of over 100% in the rents and service charges in all urban areas in the last five years, councils claim that the charges are still well below the market prices, considering the rapid fall of the Zambian currency during the same period.[2]

Another structural weakness of the present local government administration has been in its failure to de-link local government administration from the Central government, or from the President. Only recently, most Urban Councils put their housing stock up for sale, after a lengthy process in accordance with the government's objectives as contained in the country's housing policy. The President immediately directed that all houses built before 1959 should be given to sitting tenants free, and that houses prices be reduced. The Local Councils were only allowed to charge legal

[2]Based on an interview with Mr. A. Jere, the Director of Water and Sewerage Department of the Kitwe City Council. On the other hand, domestic Electricity charges have been increased by about 70% in the same period.

fees of between K10-20, 000 ($10-20) for the change in ownership. What is particularly worrying about this development is the very fact that the same MMD Government has championed the independence of the Local Councils to run their own affairs based on professionalism and local need. This understanding has led most Urban Councils to sign huge loan agreements for water and road rehabilitation works with foreign investors[3], with the hope that they will recoup their investment based on the user pay principal. Although to date no donor or private investor has expressed their worries on the return to government intervention on the market, it is most likely that this development will have the effect of scaring away any potential investors in infrastructure provision and rehabilitation. Continued Government intervention in setting (and reducing) public utilities charges set by the Local Councils would also explain the very low number of foreign private investors in the Zambian public utilities market.

4.3.1 New Housing Policy

Although the MMD government has said that it is very committed to structural reforms in the shelter sector, it was only in January 1996 that the formal housing policy document was official launched. This late launching of the shelter policy document should not, however, be misconstrued to mean that Zambia has not had a shelter policy guide-line in the last 5 years, because most of the reforms as guided by the Enabling Shelter Strategy were taken in the early years of the new government assuming power. The formal documentation of the Zambian housing policy document was a mere confirmation of the previous undocumented reforms that had in most cases already been implemented[4]. What has been lacking, however, has been the political will on the part of government to effect most of those changes.

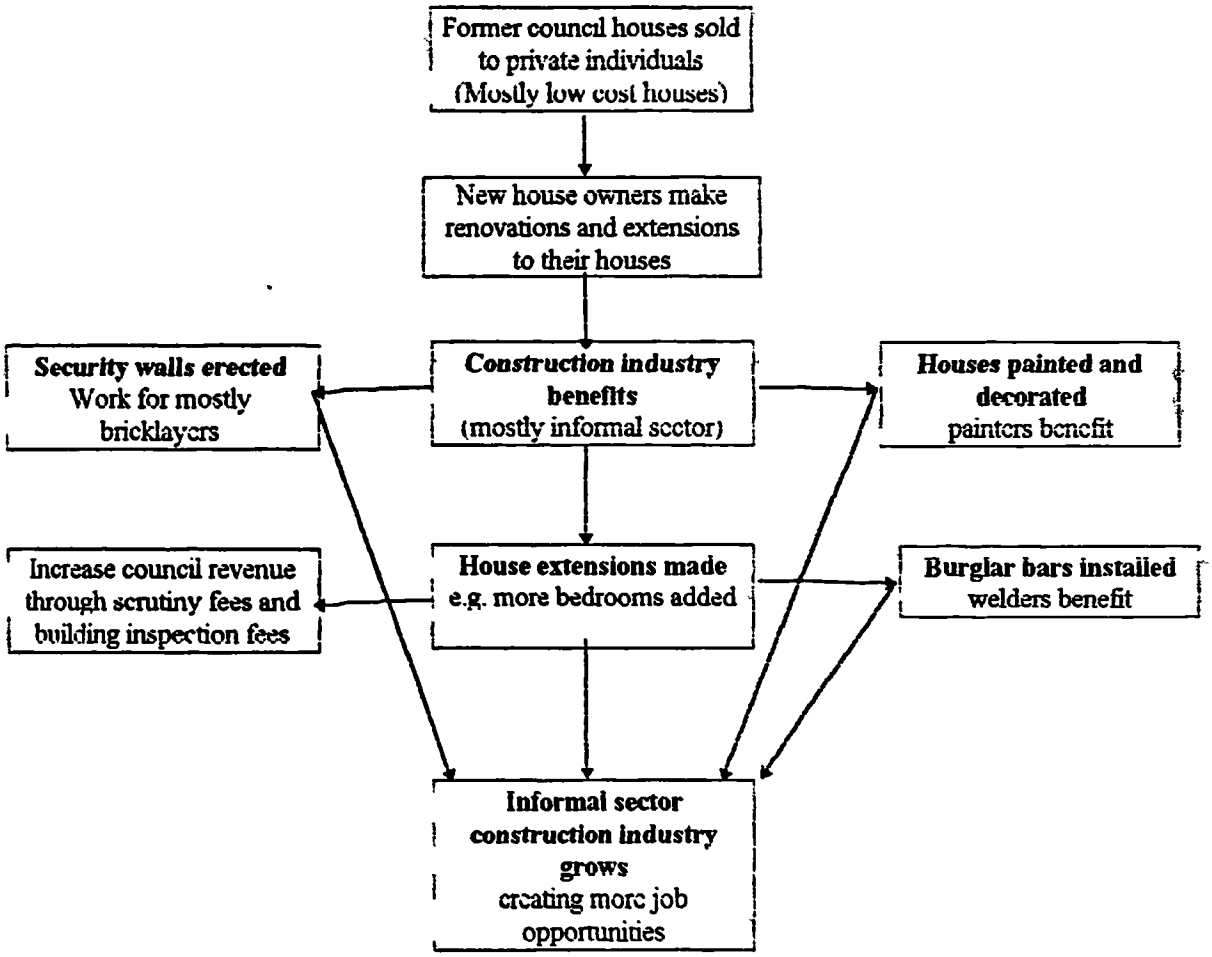
For instance, the law that had long obliged employers to provide housing or a housing allowance in lieu of a house, under section 41 of the Employment Act of 1972, was scrapped in 1993, in a move that was then seen to encourage workers to build and own their houses and thus lessen the dependence on their employers. Ideally this move of scrapping social housing should have gone a long way in reducing company overheads and eventually the prices of their products too. The introduction of a market economy in the housing market aided by the sale of council houses, should also have increased private sector construction and productivity in the construction and related industries, like the building materials industry. Figure 4.2 below shows a matrix explaining the benefits of selling council houses to sitting tenants to the construction industry. In this matrix, we see that basically the construction industry benefits from the sale of councils if

[3]The German Government has been the major partner in water and sewerage rehabilitation programmes, having agreements with all the three cities of Lusaka, Kitwe and Ndola. The Japanese on the other hand have just signed a $7m aid package with the Lusaka City Council for the rehabilitation of the road network in Lusaka.

[4]The author was one of the members of the housing policy formulation team that drafted the Zambian housing policy document before he left for PhD studies in September 1994.

and when the new house owners embank on house improvements and extensions using construction firms. As was highlighted in chapter one, most of these households tend to use informal sector contractors because of their low construction overheads. The most common improvements noticeable during the field visits was for most households to install burglar bars, build a security fence, repair the house and in some cases add one or two bedrooms. The external extensions and additions to these houses also had the effect of increasing local council revenue through building inspection fees, although council inspectors rarely inspected such building sites. These building activities by the new house owners, thus increased the volume of work for small scale contractors (most of whom were in the informal sector) especially for painters, bricklayers[5], welders and carpenters, thereby increasing job opportunities and demand for construction materials in the construction industry.

Fig. 4.2 Benefits of selling council houses to the construction industry



Source: Mashamba 1995/6 survey data

[5]In Zambia, even those that lay cement blockwork are commonly refereed to as bricklayers

4.3.2 Housing provision in the 1990s

In chapter three, we saw how the previous Zambian government tried to solve the housing problem through public mass housing. The introduction of the Enablement Shelter Strategy was, therefore, an attempt by the new government to encourage more formal private sector housing investment against a backdrop of reduced government and public sector housing investment. The results, however, have not been as expected, as there has been little (conventional) housing construction place in Zambia in the last 5 years. For instance, Lusaka and Kitwe have not had any major conventional housing construction schemes since 1989 and 1972 respectively (Mwanza, 1996). Ndola was fortunate to have had 118 low cost houses built in 1996, under the Chinese aid scheme. The only substantial increases in housing stock has been in the informal traditional housing market.

The National Housing Authority (NHA) the major parastatal that provided the bulk of housing in the 1980s, has failed to do so in the 1990s. For example, whereas in 1994 the National Housing Authority completed 59 housing units, in 1995 the number reduced to only 54 units, reducing further to 40 units in 1996. This is a big drop in annual production figures, considering that the NHA was able to building hundreds of housing units in the 1970s. The situation was no better in the formal private sector, where on average 8,000 to 10,000 housing units were constructed between 1990 and 1994. Most of the house construction was in the informal and mainly traditional housing sector (see table 4.3 below). Driving through the three cities during the field survey, it is, however, very hard to believe that during the period 1991 to 1995, there were more conventional houses built (36,120) than squatter houses (13,646, see table 4.1). The other possibility is that the NHA housing record system, especially for the informal sector is grossly effective.

Table 4.1 Zambia Housing Stock, 1991 to 1995

Category	No. of Units in 1991	%	No. of Units in 1995	%	Increase in stock 1991-1995
Traditional	855,200	65.7	938,687	65.0	83,487
Squatter	135,100	10.4	148,746	10.3	13,646
Upgraded sites and services	50,900	3.9	54,877	3.8	3,977
Sub-Total Unconventional	**1,041,200**	**80**	**1,142,310**	**79**	**101,110**
Low Cost	180,500	13.9	216,620	15.0	36,120
Medium Cost	35,900	2.8	38,992	2.7	3,092
High Cost	20,900	1.6	21,662	1.5	762
Servants quarters	22,500	1.7	24,550	1.7	2,050
Sub-Total Conventional	**259,800**	**20**	**301,824**	**20.9**	**42,024**
Grand Total	**1,301,000**	**100**	**1,444,134**	**100**	**143,134**

Source: NHA, 1995

4.3.1.1 Selling of council housing stock

Early moves by the new government as early as 1991 to promote the home ownership scheme which, among other measures, involved the selling of public housing units to sitting tenants. Admittedly this was not an entirely new measure by the new government, as the previous UNIP government had started to sell some of the council housing stock as far back as 1988, starting with the sale of the low cost housing units in Chilenje South, Lusaka. In 1993, the Government again revived its commitment to selling public houses to sitting tenants, when it signed an agreement with the public service workers for the sale of public houses to civil servants. However, not a single unit has been sold to this day[6]. The councils have equally been very slow in disposing of their housing units, blaming the slow pace of the sale on delays from the Ministry of Local Government and Housing in releasing the relevant policy guidelines. The Minister of Local Government and Housing finally issued the new guidelines on the sale of council houses at a press conference in Lusaka on the 15th. February 1996. Among the key prerequisites was the requirement for the councils to seek initial approval of the proposed sale through full council meetings and later apply to the Minister for final approval. The councils were also required to provide a current Government valuation report, the market value of the houses, the proposed

[6]This agreement was formalised by the publication of Circular No. 13 of 1993, although, as stated above, no ministry or any Government department went further to effect the agreement.

selling prices of the houses, and proposals on the use of the money realised from the sale of these houses.

Despite efforts in the last few months by both the central and local governments to implement the policy of selling public houses to sitting tenants, by the end of the field work in March 1996, only Kitwe City Council had gone ahead and sold over 7,000 of its housing units to the public. Ndola had also started though on a small scale, but had announced that approval had been sought from the Minister to sell 5,000 of its units. In Lusaka there were delays because prices set by the Council and the modalities of the sale had led to residents forming housing associations to petition the council on the house prices, areas, and houses chosen for sale.

Despite the slow start, the indecision and party politics that continue to surround the sale of council houses, there was a surprisingly high number of our respondents, 54% in all, that viewed this policy measure as a positive step that had contributed to the well being of their businesses. Another 24% of the respondents were not quite sure of the impact in this measure and only 22% actually felt that the sale of council houses had not helped their construction businesses. Thus, it appears that, had this policy been implemented earlier on with much more diligence, the results may have been much better for the construction industry and the macro-economy.

Table 4.2 Progress on selling councils houses and % level of satisfaction by construction companies

Kitwe	Total council housing stock	No. of council houses sold or given out free	formal small-scale construction respondents	Informal sector firms	Total of all firms
Lusaka	17,759	N/A	51	67	49
Kitwe	33,344	7,000	65	84	59
Ndola	22,589	2,000*	59	71	54

*At the time of the field survey, Ndola City Council had received approval to sell another 5,000 houses

Source: NHA annual reports and survey data

These results follow the varying efforts made by the three councils in disposing of their housing stock. Kitwe which was leading the other two Cities in the sales, had the highest positive effect on local businesses (59%), followed by Ndola with 54% and least of all Lusaka (which was still fighting petitions) with 49%. The level of satisfaction was even higher for informal sector

construction firms (see table 4.2 above). These figures do not come as a complete surprise, considering that house extensions and repairs that most new house owners carry out are too small to involve medium and large scale contractors, save for those in manufacturing construction materials and supply. This shows that sale of council/public housing stock enhances business operations in the construction industry (See figure 4.2).

TABLE 4.3 Effect of selling council housing stock on local construction companies in %

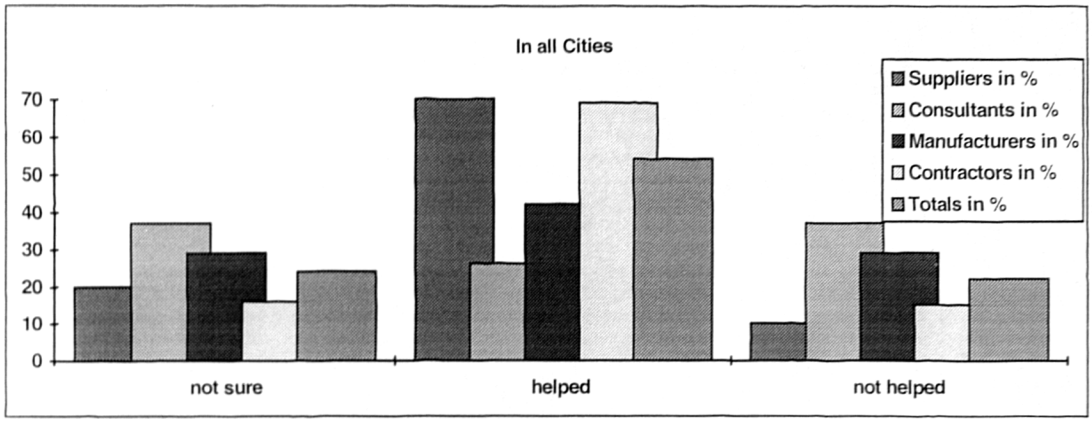
Kitwe	Not sure	Helped	Not helped
Suppliers	19	62	19
Consultants	38	38	24
Manufacturers	27	55	18
Contractors	14	67	19
Totals in %	**21**	**59**	**20**

Ndola	not sure	helped	not helped
Suppliers	33	67	0
Consultants	17	50	33
Manufacturers	20	40	40
Contractors	27	55	18
Totals in %	**25**	**54**	**21**

Lusaka	not sure	helped	not helped
Suppliers	13	87	0
Consultants	42	16	42
Manufacturers	38	24	38
Contractors	13	78	9
Totals in %	**27**	**49**	**24**

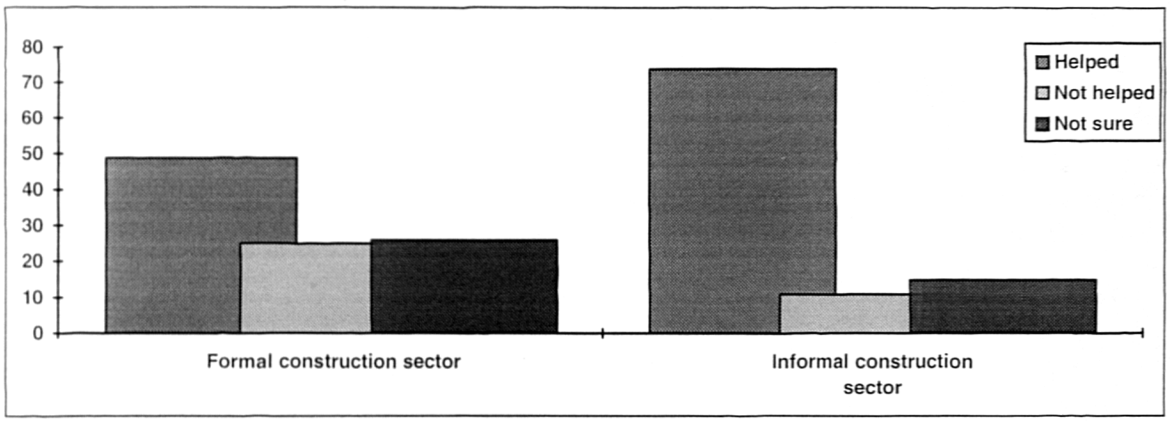
Source: Mashamba 1995/6 survey data

Fig. 4.3 Effects of selling council housing stock on the different sectors of the Construction Industry



Source: Mashamba 1995/6 Survey data

Fig. 4.4 Effects of selling council houses on the formal and informal construction companies



Source: Mashamba 1995/6 survey data

Figure 4.3 shows that, when analysed as different sectors of the Construction industry, we see a different pattern emerging. The sale of council housing stock has mostly benefited suppliers of construction materials and contractors, who registered positive effects of 70% and 69% respectively. Consultants and manufacturers of construction materials have not really benefited, registering positive effects among only 26% and 42% of the respondents respectively. This suggests that the expected repair, maintenance and extension works that have been carried out on these previously owned council houses are not being done by conventional consultants, i.e., architects, engineers and quantity surveyors, but by informal sector artisans or the residents themselves[7]. Similarly, the high rate of confidence placed on the exercise by suppliers/traders

[7]Most of the construction taking place is mostly in the form of security walls.

(70%) as against the manufacturer's 42% would go to support the allegation by the Zambia Association of Manufacturers (ZAM), that most of the materials being used in the industry are imported. This, however, is contrary to the theories of adjustment and shelter enabling with all their postulated benefits of the trickle down and the multiplier effects, but is consistent with other research findings on the negative effects of adjustment on the local industry, at least in the initial phase of the programme (Dijktsra, 1995).

Note, however, that since mid March 1996, the President has issued an ultimatum to all urban councils in the country to dispose of some of their housing units by June 1996 or face severe reprimand (ZANA, 19/3/1996). Whether the president's intervention in the house sale was as a result of the inertia exhibited by the Councils in selling their stock or it is a mere election gimmick, as alleged by the other opposition parties, remains to be seen. The MMD has however, continued with its policy of selling council and Government housing stock to sitting tenants even after winning the 1996 elections.

Plate 4.1 Former council and private sector houses in Riverside extension (Kitwe) now surrounded by new security walls, mostly built by informal sector contractors

In the short run, the effects of the President's intervention on the housing market are likely to be falling standards of services offered by the affected councils, while in the long run there is the likelihood that the private sector (both local and foreign) will not be enticed into investing in this sector. The other effect is the one that the Kitwe City Council is already going through, which is having to look for money to refund those tenants that bought the houses at prices that were set by the full council meeting and approved by the Minister, but have since been given free by the President. A total of over K400m ($0.4m) was raised by Kitwe City Council from the sale of over 7,000 of its housing units.[8] However, it is not clear yet, how much money has to be refunded. Obviously plans that were drawn up to build new houses from this income, will now have to be abandoned. Ndola City Council is also reported to have raised K21m ($17,500) from legal fees in changing ownership of the 2,000 houses that were given to sitting tenants of houses built before 1959, an amount which can only build three low cost houses at current prices.

> Mr. Chiluba directed Chililabombwe Municipal Council to give away free some housing stock in Lubenge township whose value had completely diminished and appealed to all sitting tenants to make little savings in readiness to buy the houses.
> Mr. John Chiyama was all smiles when President Chiluba instantly pegged his one bedroom house with a dome roofing shape at K250, 000 ($250). Mr. Chiluba described the monthly rental of K7,000 ($7) for a one bedroom house in the township as exploitative.
> In Chibolya, township of Mufulira a woman fell to her knees ululating and thanking Mr. Chiluba after he ruled that her house, which was built in the 1940's should be sold to her at no more than K200,000 ($200) [sic][9]. The council had pegged the house at K375,000 [$350] (Zambia News Agency, 18th. March 1996).

Following the intervention of the president in the sale of council houses, the Civil Servants Union of Zambia (CSUZ) also joined in on calling the President to help expedite the sale of government houses to civil servants. To this end, the government announced on the 16th. of April 1996 that the cabinet had met and approved the sale of 9,000 units to the public service, leaving 7,000 units for use by political leaders, security services, education and the health services. Notwithstanding the benefits of such a move, as postulated in the enabling shelter strategy, this measure seems to be ill planned, given that no detailed plans on the modalities were announced. We will recall, however, that the government had earlier signed a similar agreement with the Civil Servants Union (CSUZ) and failed to implement it.

[8] This works out to average cost of $57 for each of the houses!

[9] But according to the President's earlier decision, all houses built before 1959 were supposed to be given free to sitting tenants save for legal costs.

4.4.0 Privatisation of public companies

We have already seen in Chapter one that private sector participation is important to both the Structural Adjustment Programme and the enabling shelter strategy. To this end the Zambian government formed the Zambia Privatisation Agency (ZPA) in 1992, an autonomous agency of the Government established through the Privatisation Act No. 21 (of 1992). The ZPA is charged with the responsibility of disposing of publicly owned companies, which hitherto comprised 80% of the national economy, to the private sector and raise funds for public sector expenditure. Not only has Government raised money from the sale of these companies, but it has also made huge savings from the subsidies that would otherwise have been given to these companies. For example, between 1985 and 1989 the Zambian government paid US $455 million in hidden subsidies to these companies, against income received of only US $22 million, making a total loss of US $433 million (Zambia Privatisation Agency [ZPA], 1995).

The modalities of selling public companies include public tender, mainly for smaller companies which are sold as single entities, public flotation for large and complex organisations, and Management Buy Outs (MBOs). As of December 1996, 165 companies had been sold to both local and foreign investors, resulting in a total of 1,700 job losses through redundancies. There are about 110 companies still to be disposed of (ZPA, 1997; Financial Mail, 21/01/97). Among companies being sold have been some from the construction industry, notably Chilanga Cement Limited to the Commonwealth Development Corporation, Mulungushi Construction to a management buy-out team and Zambia Steel and Building Suppliers Limited, which was broken down into smaller units and sold.

Although it is too early to say what effects privatisation has had on the construction companies, as both Mulungushi Construction and Zambia Steel and Building Suppliers were only recently privatised (March and April respectively), Chilanga Cement, which was privatised earlier on, has performed to near expectations. Chilanga Cement PLC, which is now traded on the Lusaka Stock Exchange, has not only managed to satisfy local demand but remains the only major Zambian construction company exporting its products within the region.

It was also envisaged that the privatisation of public companies would lead to an increase in business activities in the construction industry, as the new owners of these hitherto low capacity production companies began to rehabilitate them, and invest in new fixed capital stock. Whereas some companies like Chilanga Cement have indeed managed to increase production and the capital base of the company through floating their shares on the Lusaka stock exchange, a number of companies were simply liquidated and their fixed stock sold through auction. Zambia Airways,

the national Airline, and United Bus Company were two such companies that were liquidated and their offices and houses sold to the general public. The urgency to recoup the losses and salvage something to pay the debtors has also meant that most buildings belonging to these liquidated companies are being sold way below the replacement values. The effect of such moves has been to undermine the construction industry, as most households find it cheaper to buy these undervalued houses than build new ones. Take for example, a 50 square metres, two bedroom low cost house going for K2m ($2000), when building a new one would cost about K6m ($6000) at 1995/6 prices[10].

Nevertheless, privatisation has assisted in increasing government revenue. For instance, by the end of the third quarter of 1996 alone, ZPA had raised a total of K31bn ($26m) from the sale of public companies (Financial Mail, 14/01/97). Most of the money that has been raised has unfortunately been used to pay for redundancy packages for the affected workers, leaving the government coffers with little or no money for real investment in the economy, contrary to postulated expectations in the two theories (see also fig. 4.1). Unfortunately, the delays in starting the privatisation programme and the decision to channel resources released from the sale of public assets to paying personnel benefits has meant that very little if any real benefits have gone into creating more capital. One could still argue that the retrenched workers with their benefits have still to start up their own businesses. But as our field work has demonstrated, only 30% of the respondents felt the benefits of privatisation were trickling down to their businesses, whereas (61%) had not benefited from this exercise.

The other major drawback in the privatisation programme has been Government's indecision in privatising the Zambia Consolidated Copper Mines (ZCCM), the biggest single company and main export earner (over 80%) in Zambia. ZCCM employs over 50,000 workers, about 10% of the total formal Zambian labour force, mostly employed on the Copperbelt. ZCCM is not only the biggest customer of construction services and products on the Copperbelt, but it is also the biggest single consumer of cement in the country. With its huge revenues from the glory years, ZCCM not only controls the Zambian economy, but runs and owns it own primary and secondary schools, clinics and hospitals, colleges, housing estates, roads and railway network, police force, markets and community centres, and so on.

The uncertainty of the status of ZCCM has thus meant capital projects have been suspended pending the sale of the Company. The lack of capital investment in the mining conglomerate has also resulted in a drastic fall of copper production, thus reducing the revenue for the mining

[10]The building price for a low cost house has be calculated using the average cost building prices of K120,000 ($120) per square metre, that was being used at the time.

company and exacerbating the situation. The ZPA has put the figure for desperately needed capital injection in ZCCM to be able to run it properly at US $ 2 billion, money which can only come from private sector funding considering the low levels of state coffers (ZPA, 1995). Given this scenario, we are unlikely to see the expected influx of foreign investors in Zambia, and a kick start in a private sector economy, unless ZCCM is dismantled and privatised, "lip service to privatisation is not good enough" .[11]

Plate 4.2 One of the former ZCBC shops in Kitwe: Now repainted and with new security wall

Having said that, it would be wrong if we gave the impression that the construction industry and the macro-economy have not benefited from privatisation, because some of these privatised companies have gone on to make physical improvements to the real estate and even build more to add to their existing stock. A good example is what used to be the Zambia Consumer Buying Corporation, a nation wide chain stores that was sold to Shoprite-Checkers (a South African company), who immediately renovated all their city stores, using Zambian construction companies at a cost of $12m and went on to employ 110 Zambian workers (Times of Zambia,

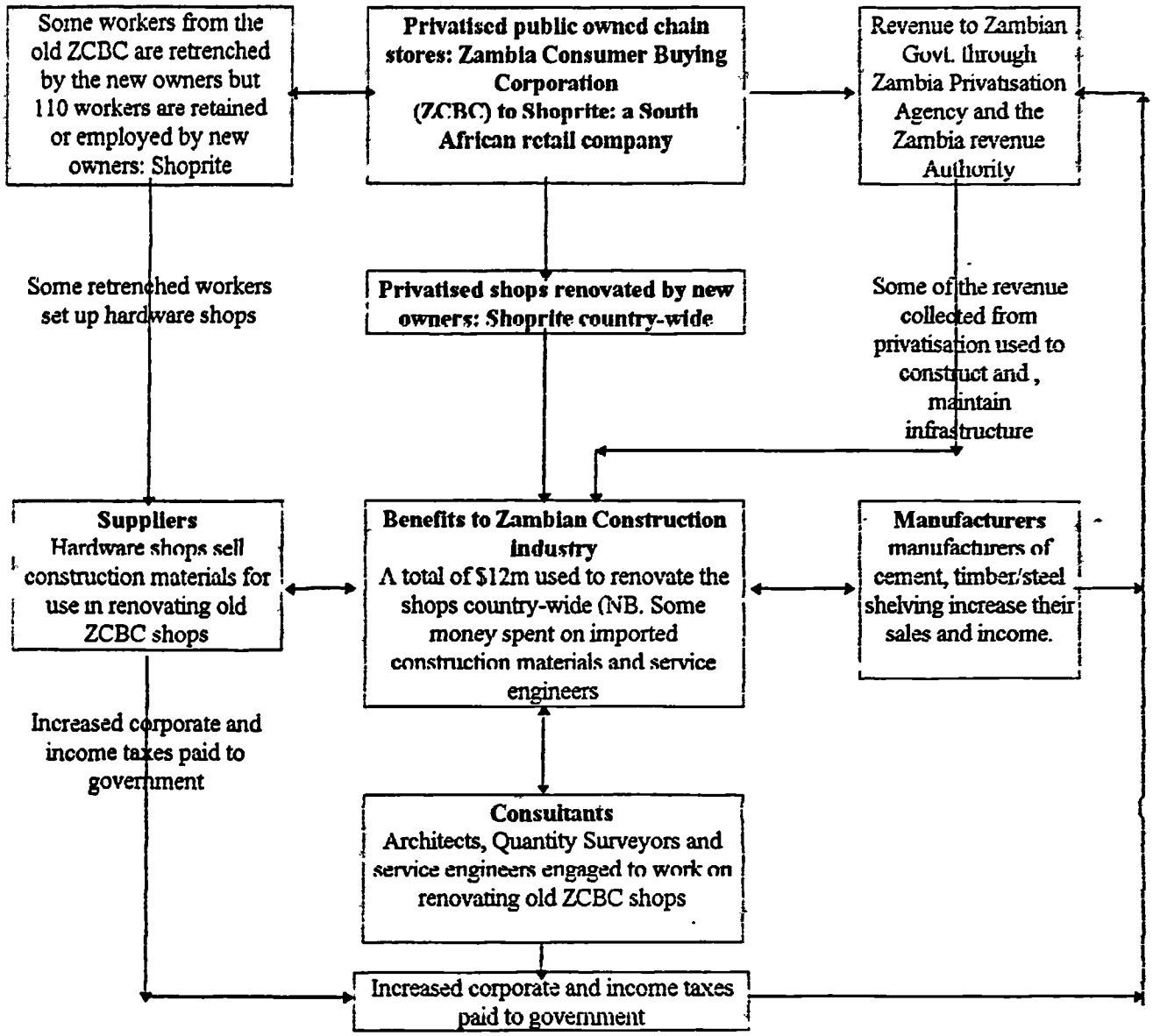
[11]Note, however, that the World Bank 'Findings Report' *Privatisation in Africa: The Zambian example, 1996*, states that the Zambian privatisation programme is a model for other African countries to follow.

26/10/95; Refer also to fig. 4.5). The benefits of privatising companies are best illustrated in the fig 4.5, in which we shall use the case of the Shoprite Checkers plc (South Africa) buying the former ZCBC shops as a typical example. At the top of the chart (fig. 4.5), we see that the benefits start with Shoprite Checkers buying the former ZCBC shops, and the Zambian government receiving money from the sale. Some of that money was spent on constructing new and improving existing infrastructure in the country. Although as noted earlier, most of the money received from the sale of these properties was spent on retrenchment benefits for those retrenched and other recurrent expenditure by the government. Some of the retrenched workers, some of whom will have been working in the hardware department of the former ZCBC used their retrenchment benefits to open their own hardware shops, either in the formal or informal sectors. Those in the formal sector thus contributed to increased government revenue, by paying corporate and income taxes. There was also an opportunity to contribute to new employment opportunities in the industry, if the new owner of these hardware shops employed one or two more people.

In the meanwhile, the new owners: Shoprite Checkers was busy making renovations to their newly acquired chain stores. From what the author saw in Lusaka, Kitwe and Ndola shops during the field survey, the renovations were quite comprehensive. The renovations included both internal and external features at a total cost of $12m, from minor works like shelving, painting, and glazing to more major works like the installation of new air conditioning units, new floor finishes, lighting and electrical rewiring, The design of these revonations, obviously had an input of both local and foreign (South African) consultants (architects, quantity surveyors, building services and electrical engineers), which ultimately increased the volume of work in this sector and possibly job opportunities. Manufactures and suppliers of construction materials also benefited from the increased volume of their trade, resulting from these national-wide renovations. Contractors and their specialised sub-contractors (electrical, air conditioning and shop fitting) also benefited, although it must be said that in all the three cities that the author visited, all the contractors and their sub-contractors were all from the formal sector, including the foreign ones, like those engaged to install the air conditioning and refrigeration units.

No doubt the use of some foreign consultants, main and sub-contractors and the importation of some finished products like air-conditioning and refrigeration units will have meant that some of the some money spent of renovating these shops finally went abroad. However, there is no disputing the fact that most Zambian construction firms benefited from this exercise, including the Zambia government which was collecting money through VAT and taxes from both local and foreign firms involved.

Fig. 4.5 Theoretic Linkages of Privatising public owned companies and the construction industry: Case study Shoprite Checkers stores



Source: Mashamba 1995/6 survey data

4.5.0 The new Investment Act of 1991 (Amended 1993)

Another very important step that the Zambian Government took in her efforts to facilitate and attract private investment in Zambia was to enact the Investment Act of 1991 which was subsequently amended in 1993. The primary aims and objectives of this Act are to attract private investors to invest their resources in the Zambian economy and not another competing country in the region or any other part of the world, by giving investors special incentives. The Act caters for

the creation of an Investment Centre and Board which is charged with promoting investment in Zambia by the speedy processing of investment applications.

> ....the functions of the (investment) centre shall be to...
> (d) assist in the securing from any Ministry, government department, local authority or other relevant body any permission, exemption, licence, bonded status, land and any other thing required for the purpose of establishing or operating a business enterprise (Investment Act No. 39 of 1993, p. 278).

Added to the speedy processing of investment licences, would-be investors were also given various incentives once their application papers meet the relevant prerequisites and were approved. Among the incentives that were given were tax free benefits for capital goods brought into Zambia, and reduced rate of income taxation (15%) for those going into farming, non-traditional products and rural enterprises. Note, however, that these tax incentives were withdrawn in the January 1996 budget, following company and income tax reductions for everyone in the country. Although the company and income tax reductions contained in the January budget are to be welcomed, the mere fact that the Government was able to withdrawn tax incentives given to investors as contained in the Investment Act, is likely to cast doubt on their sincerity on future promises to investors.

TABLE 4.4 INVESTMENT LICENCES/CERTIFICATES ISSUED (Jan. 1993-Sept. 1995)

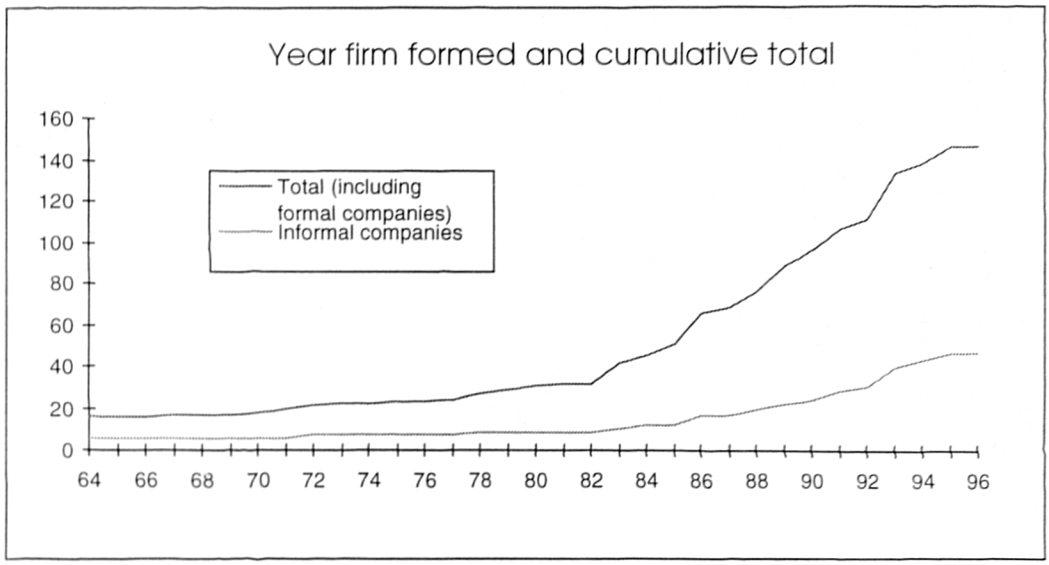
Sector	Number of Licences			Pledged investment(US $ m)		
	1993	1994	1995	1993	1994	1995
Agriculture	124	95	38	73.81	53.66	37.70
Manufacturing	106	117	36	132.84	60.62	82.58
Tourism	57	37	14	15.79	6.80	3.56
Transport	42	31	12	58.52	12.33	5.51
Mining	12	14	3	10.69	18.11	0.72
Construction	**13**	**5**	**4**	**10.29**	**1.89**	**2.88**
Consultancy	4	1	0	4.45	0.257	0
Fishing	4	2	3	4.31	0.708	1.81
Engineering	4	4	1	1.72	0.362	0.14
Health	1	5	0	0.077	2.57	0
Services	9	26	21	1.09	2.58	24.97
TOTALS	376	337	132	313.78	159.88	157.86

Source: Profit, Vol. 4 No. 8, p. 25

Official statistics at the Investment centre show that, between 1993 and 1995, a total of 845 investment licences were approved with a pledge of $631.52m investment, of which only 22 (3%) licences with a total pledge of $15.06m were in the construction sector (see table above). The low number of construction industry related licences should not however, be taken as a negative factor on the part of the construction industry. On the contrary it should be taken as a positive factor for the industry because, in the main, investors that go through the investment centre are those that seek tax incentives and rebates on capital goods brought into the country. For example, the $15.06m investment pledge that was recorded in the 3 years by the Investment Centre is due mainly to donor funded roads and water rehabilitation programmes which, in the main, have been carried out by foreign based construction companies using a lot of capital intensive techniques, hence their application for investment licences (Mashamba, 1996). Yet what the country really needs are local and small scale labour intensive construction firms, that will help absorb the masses of unemployed citizens, especially the youth in urban areas. The number of construction companies registered at the Government Buildings Department, nevertheless, increased from 345 in 1993 to 447 in 1995.

No doubt the liberalisation of the economy under policies of structural adjustment has attracted a great deal of investment. Notwithstanding the purported high failure rate for construction firms to survive in the industry, there was a considerable high rate of new entrants in the construction industry. This was demonstrated from our own field data, which found that 34% of all the firms interviewed were formed between 1991 and March, 1996, a period of four and half years (See table below). It is also particularly important to note that 70% of all the post-adjustment firms are small scale companies, just the size of firms that Government policies were aiming for. However, expectations that the advent of the Structural Adjustment Programme and its concomitant retrenchment of public civil sector workers would see a massive increase in informal sector firms seem not to have materialised. For instance, figure 4.6 shows that informal sector construction companies have been steadily increasing since 1983, although the rate increased substantially in 1993. This could mean that most of the retrenched workers have opted not to go into the construction business because of the high risks and low rate of returns, as was the case in Nigeria (CASSAD, 1991).

FIG. 4.6 Cumulative frequency table for construction companies and the year formed



Source: Mashamba 1995/6 survey data

On the other hand, however, there has been a noticeable influx of private informal investment in all sectors of the economy under the umbrella of trade liberalisation. Rather unfortunately, much of this investment has gone into petty trading, mainly in second hand clothing from Europe and the US., leading to the collapse of the Zambian clothing industry. "Salaula," as the business is called in Zambia, is conducted at very small scale, the construction industry has not benefited greatly for this upswing in informal and private business incentives as, all the Salaula trader does is to build a small timber structure with plastic roofing and without windows and doors, as his business premises. Furthermore, the low forward and backward linkages associated with trading in foreign goods has thus deprived the macro-economy of any meaningful benefits, except for the jobs created for those involved in this business.

Arguably, Zambia is today the most liberalised country in Africa[12], and a lot has been achieved in attracting private sector investment in the country in the last five years. However, the democratisation of South Africa in 1993 has brought in a new and more advanced competitor in the field. Considering the existing sophisticated infrastructure in South Africa, it is difficult to forecast that Zambia will continue to attract more foreign investors into the country. The political tension that surrounded the barring of former president Kaunda in the 1996 presidential elections, the emergence of a hitherto underground group that has been planting bombs around the country, and the subsequent suspension of aid by the leading industrialised countries, are likely to reverse

[12] The World Bank and the IMF has described Zambia's privatisation programme as a model for Privatisation in Africa. See *Privatisation in Africa: The Zambian example*, 1996a

the gains of the last five years. If the lessons of 1987, when the donor community suspended aid to Zambia, are anything to go by, then we are likely to see these investors (both local and foreign) invest their capital elsewhere, where their investment will be safe and stand a chance of growing.

4.5.1 Liberalising the foreign exchange market

There can be no doubt that attracting foreign investors, as we have seen in the foregoing subsection, can only succeed if a country has liberal foreign exchange policies, not only for flexibility in importing materials, but also in externalising profit. No wonder the MMD government was quick to repeal all restrictive regulations pertaining to the selling and buying of foreign exchange on the open market, in a step by step method between April 1992 and January 1994 (Mulaisho, 1994). There were hopes that the removal of currency restrictions would eliminate black marketeering in foreign currency and help stabilise the Zambian Kwacha at its real market value, as postulated in the structural adjustment theory. It was expected that the Zambian Kwacha would immediately fall drastically against international currencies, with the consequences that imports would become dearer on the local market, thus discouraging imports and promoting local production with the strong possibility of surplus for export.

In view of these liberal policies in the foreign exchange market, the Zambian Kwacha has depreciated by 4,500% between 1991 and June 1996, from K29 to K1,300 per US dollar. However, despite this massive devaluation on the open financial market, imported goods have continued to compete with locally produced goods and Zambian goods have literally failed to find markets within the Sub-region, contrary to expectations in the adjustment theory. The Zambia Association of Manufacturers (ZAM) President, Mr. Mark O'Donnell, has attributed this trend to the alleged export subsidies given to foreign firms by their governments to promote exports and discourage imports.

> ...Liberalisation has brought in a flood of cheap imports for manufacturers to compete against. In order to do this lowering staff levels and increasing efficiency has been the only option for many companies...
> We are pushing hard for a trade agreement with Zimbabwe whose exports currently have open access into our market. Many of the goods coming into Zambia have no duty paid on them because of smuggling while we have limited access into their market...
> With South Africa we feel the trade imbalance is a great disadvantage to Zambian producers. The 1993 figures show exports to Zambia of US $ 360 million while exports from Zambia were US $15 million. The reason is that Zambian goods are kept out of South Africa because of high tariffs. We want access into that market through lowering of tariffs (Aked, 1995, p. 22-23).

Although foreign exchange liberalisation has failed to make the average Zambian goods and services more competitive than foreign ones, industry represented by 90% of respondents were of the strong view that foreign exchange liberalisation had, nevertheless, helped in the easy procurement of foreign currency, hence making business operations easier than was the case before. One good reason that could have led to Zambian goods failing to compete with foreign goods both in and outside Zambia could be that a landlocked country is highly susceptible to fuel price increases as a result of the falling Kwacha. Another reason may be that falling copper prices in the last five years have reduced the amount of foreign exchange available on the market, coupled more recently with the withholding of donor aid by the industrialised World.

4.6.0 Improving land delivery with the Land Act of 1995

It is abundantly clear from existing literature that current shelter-construction problems in most Third World countries are a result of inadequate legislation and practices to effectively distribute land to the majority of inhabitants (Habitat, 1983; Habitat, 1984; Dowall, 1991). In Zambia, the historical development of most urban low income settlements has shown that the bulk of the housing stock for the medium and low income earners is built on land acquired through the informal process, without the consent and control of the planning authorities (Habitat, 1988, p. 9; Mashamba, 1990). Other scholars have gone further to draw the conclusion that low house production in most of the Third World countries is largely due to the insecurity in the land tenure system pertaining in these countries and that, given a more secure land tenure system, these low income earners would do much better than is the case now (Turner, 1989; Martin 1976). Other scholars have pointed to poor land administration in the Third World as been the other major obstacle in the housing-construction industry (Dowall, 1991, pp. 7-10).

The subject of land in Zambia has always been a controversial one, whereas colonial policy has always been criticised for its racial bias, post independence legislation on the other hand has been viewed as being too bureaucratic and unfavourable and, least of all, incompatible with the new principles of economic liberalisation. We will recall from Chapter Two that, since the Land (Conversion of Titles) Act of 1975, all freeholds and long-term leaseholds of over 100 years was converted to leaseholds of 100 years. The Conversion of Titles (Amendment) Act No. 15 of 1985 went further to exclude aliens and foreigners from being granted land in Zambia. There was, however, provision in the 1975 Lands (Conversion of Titles) Act for long leaseholds of over 100 years to be granted, were international obligations required this. However, the most contentious of all clauses was the declaration that all undeveloped or bare land was without value, thus all transactions in bare land were illegal under Zambian law. These measures were obviously in line

with the UNIP government's inward looking development strategy as guided by its philosophy of Humanism, in contrast to that of the MMD, which is more outward looking.

The opening up of Zambia to foreign investors with the coming to power of the MMD, as prescribed in its Neo-Liberalist manifesto, obviously required the enactment of appropriate legislation in land policy, if only to assure and safe guard the interests of private investors. The repealing of all old land laws as passed by the previous UNIP government and the subsequent enactment of the 1995 Land Act came as no surprise. What was surprising was the uproar and resentment expressed by most Zambians on the clause to grant land to "aliens" and foreigners who would come into Zambia to invest (Kaunda, 1995, pp. 90-91).

Although the passing of the 1995 Land Act raised a great deal of controversy, there is overwhelming consensus to the effect that past legislation on land was very restrictive, not only for construction purposes, but in other areas of national development, for example agriculture. The enactment of the 1995 Land Act has thus been hailed as a step in the right direction by government, as it has been argued that it will ameliorate the aforementioned developmental obstacles. Unfortunately this optimism by government is not shared by the traditional chiefs, who see the new Land Act as taking away their powers to distribute land for developmental projects in their areas. The bone of contention for the traditional chiefs being that the new Land Act of 1995 allows their subjects to acquire individual leasehold titles to land, hence effectively depriving them of their erstwhile powers over customary land (Kaunda, 1995, p. 91). Fortunately for the construction industry, the continuing controversy on the 1995 Land Act is confined to rural and agriculture land, rather than urban land which does not fall under customary land.

In the main, the 1995 Land Act has had the effect of liberalising the Zambian land market, by allowing for the buying and selling of all land (including bare land), to anyone. For whatever reason, the government decided on maintaining the 99 years leasehold tenure system, rather than returning to the freehold system which had been pertaining before 1975 (see chapter three). The other land reform measures have taken place with the computerisation and decentralisation of the land administration. Whereas previously all land transactions where conducted in Lusaka, there is now a regional land office in Ndola to cater for the Copperbelt and adjacent provinces. It is hoped that the computerisation and decentralisation of the Lands Office will facilitate land delivery and construction in Zambia. It is, however, too early to assess the effect this will have on the construction industry or the macro-economy for that matter.

The decentralisation of the land office to the Copperbelt town of Ndola has somewhat eased the problems that most developers have had to face in the past of having to travel to Lusaka each time they had land problems, queries or ground rent to pay. The major problem of inadequately serviced land has, however, not been solved by recent structural and administrative reforms in the Ministry of Lands. This problem will only be solved by the training and deploying of a number of qualified land surveyors at the Ministry, a task which seems to have started in earnest with the new land surveying degree at the University of Zambia in Lusaka. The resumption of the diploma course at the Copperbelt University, suspended due to lack of qualified staff, would also help in easing the land delivery problem.

Admittedly land *per se* has not been a major problem in Zambia, at least not for housing or other construction purposes. The problem has been with the non-availability of adequately serviced land. However, the situation was made easier by the fact that most housing was either built by the public sector or the informal sector, both of whom had some leeway with the acquisition of land from the authorities. The public housing sector which comprised the Municipal Councils, Parastatals, and the National Housing Authority, had easy access to serviced land if and when available. The informal sector on the other hand was able to command some form of favours from the politicians, because of its political muscle, especially during election times.

4.7.0 Improvements to the Zambian tax regime

Low and evenly spread taxes are advocated in a Neo-Liberalist economy as they are said to be a catalyst to investment and an incentive to people to pay their taxes and at the same time encourage savings and investments. On the other hand, high and thinly spread taxes are said to discourage people from paying their taxes and discourage savings and investments, thus denying government the much needed public income. Like most other Sub-Saharan countries, Zambia has had to depend on a small taxable base for tax collection, with the result that a very few people and companies pay very high taxes: 35% until last January 1996 when it was reduced to 30%. Although there are now many small scale and informal businesses, there has been no comprehensive form of tax collection for the majority of these informal traders, businesses and self-employed persons, many of whom make more profit than some formal businesses.

Only recently, the International Monetary Fund's (IMF) managing director, Michael Camdessus, implored Sub-Saharan African countries, including Zambia, to stop the practice of raising or keeping taxes high on an over-burdened portion of the population and instead broaden the tax base and devise sensible means of reducing inflation (Times of Zambia, 19/1/96).

4.7.1 The new Value Added Tax (VAT)

The decision in April of 1995 to introduced Value Added Tax (VAT) in place of sales and excise tax should, therefore, be seen in the above context of spreading the tax base. The unique feature with VAT, as against the old sales and excise tax, is that it allows for the offsetting of tax paid on business inputs against tax due on sales. There are two ways in which this was achieved in Zambia: Zero rating and exemption. Zero rating makes allowances for VAT incurred in business purchases and other expenses to be reimbursed back from government, whereas exemption allows for VAT relief on sales, but does not allow for any relief on expenditure incurred on purchases and business expenses (Aked, 1995, p. 29). The government further stipulated that all business enterprises with a taxable income of K20 million (US $20,000) should register their businesses for VAT. The major drawback for small firms, however, is the practice by some Public companies, Parastatal and government departments to demand VAT certificates from all their suppliers and contractors, hence denying business opportunities to small scale companies.

Another very pertinent element in the new VAT regime is the zero rating that has been given to exports, in an effort calculated to make Zambian goods and services more attractive on the international market, by eliminating the cost of input sales tax for exporters. However, the imposition of import sales tax at 23% compared to 20% VAT set for local goods has not made any significant difference to prices for imported when compared to local goods. Furthermore, the setting of VAT at 20% in Zambia, compared with lower rates of competitors in the Sub-region (for example in Zimbabwe it is 12.5% and South Africa 14%) has only enticed more people to smuggle goods from these countries to Zambia[13]. This would explain the influx of imported building materials on the streets of Lusaka, of which the street vendors are not always willing to disclose their sources. To illustrate this point further, in one particular interview in Lusaka's Soweto market, the respondent threatened to discontinue the interview after he was probed about the source of his materials, having said that he bought his materials (electric cables) from "somewhere in town", without saying the name of the shop/s.

> Zambia's manufacturers feel betrayed. Last year when our farmers suffered from drought, the government rushed to the rescue, but this year our manufacturers are being left to drown in a flood of cheap imports. Those in textiles and clothing are the most vulnerable. With no protection against salaula (second hand clothing) they are falling like the proverbial ninepins. In Livingstone well known companies like JR textiles and Zambia Fashions have closed. In Kitwe my own Medwich Clothing is a casualty. And these are just three among many. Other sectors of industry are hard hit

[13] Outcry from the President of the Zambia Association of Manufacturers on cheap imported goods coming into Zambia, mainly due to smuggling: Interview at the New Savoy Hotel in Ndola on the 12th of January 1996.

> by competition from cheap imports, thanks to the liberalisation of the IMF sponsored Structural Adjustment Programme (Sanderson, 1993, p. 18).

In its quest to attract foreign investment in the construction industry, the government has unfortunately gone to the extent of giving foreign road construction companies, like Astrilda and Phoenix tax rebates, allowing them to bring road machinery into the country tax free. What makes this measure unfortunate is the fact that Zambian road construction companies have to pay import duty and VAT on their machinery imported into the country and are expected to compete with these already established companies for road contracts in Zambia. It would explain why the road rehabilitation exercise involving the Great East and Great North Roads have both been undertaken by foreign companies, using capital intensive methods.

In the rental housing market, VAT has been set at 0%, meaning that no VAT is paid on rental charges, which is in line with the government philosophy of enabling more Zambians to acquire affordable housing. Note, however, that landlords still have to pay tax on income received from rentals. The biggest drawback on the new tax regime is the law that all VAT remittances be made within 21 days of sale, whether cash or credit sale. This insistence has had the effect of restricting credit sales in the economy, as most construction involves the largest single investment for many households and institutions. The 21 days limit can only be seen as counter productive, as the following case study of Woodcrafters in Kitwe will illustrate.

Mashamba: How are you coping under the new tax regime, more especially VAT?
Mr. Naik: Quite frankly VAT is a much better tax system than what we hitherto had in Zambia, but then again I think the government needs to think again on one or two matters of detail, before a lot of companies, especially on the Copperbelt, go under.
You see, under the new VAT system, we are supposed to remit all tax due to government, within 21 days of the actual sale. Unfortunately, by government definition, sale is said to have taken place whether money changes hands or not, so long as the goods or services have changed hands. On the other hand, ZCCM the major customer for many businesses on the Copperbelt, has an internal financial regulation which stipulates that payment can only be made after 90 days for any goods or services sold to them. So where do we get the money to pay Zambia Revenue Authority (ZRA), if ZCCM can only pay after 90 days, and these days you are even luck if they (ZCCM) do pay you after 90 days.
You remember my former partner in the light industrial area? Only 3 weeks ago, he was forced to close down because he failed to pay the K100,000 (US $100) per day fee that ZRA are demanding he pays them as penalty for failing to pay them within the stipulated 21 days period, when ZCCM has not even paid him.

Mashamba: But have you brought this problem to the attention of either ZRA or Government?
Naik: Do you think we could be waiting for our businesses to go under if there was anything we could do? These guys are simply not listening.

When contacted on this same issue, ZRA officials said that their duty was to implement government legislation and referred all queries on the 21 days ultimately to the Minister of Finance. The 21 days maximum period for VAT returns imposed by the ZRA coupled with the 90 days payment by the ZCCM are obviously working against firms dependent on the mining conglomerate for construction business. Adopting cash transactions for VAT remittances to ZRA like in many other countries, rather than base it on sales receipts would save these firms from their current problems. Furthermore, with runaway inflation currently running at over 40%, and bank interest rates at over 50% (having peaked at 110%), it is obviously to ZCCM's advantage to have this 90 days grace payment period. However, it is detrimental to the selling companies who, by the time they receive their payment, will have the real value of the Kwacha drastically cut. Being a giant company, no single company has the capacity to force ZCCM to change its internal financial regulations. This may be another good reason for calls quickly to break down ZCCM into smaller units and privatise it.

4.7.2 Company and Income Tax changes

Despite recent attempts in the Income Tax (Amendment) Act of 1995 to widen and lessen the tax burden for the few Zambians in formal employment, Zambia still remains one of the most highly taxed countries in the world. With company tax and the highest income tax bracket set at 35% and 30% respectively (reduced from 35% in January 1996), it is no wonder that ZACCI and ZAM are always complaining to government for a reduction in this rate. They argue that a reduction in company and income tax rates will help to encourage more investment and reduce the current high rate of tax evasion. Arguably, the reduction of both company[14] and the highest income tax bracket, from 35% to 30%, is a step in the right direction, but a mechanism to tax the growing informal sector continues to elude the Zambian government. More and more public sector workers continue to be retrenched only to find work in the informal sector. Unless this sector is taxed, very soon government revenue from income tax will drop drastically as the formal sector continues to shrink under the Structural Adjustment Programme.

One way of ensuring this in the construction industry would be to enforce a compulsory contractor/supplier registration system with the local councils, such that only those registered with the council would be allowed to undertake work in their areas, at a fee. As long as this fee

[14]This only applies to companies listed on LuSE

was kept as low as possible, it would raise some money for the Government which could then be used in the development process.

The high rate of inflation in Zambia has also added to the effect of eating into the pockets of individuals and companies each time there is an increase, as this example below by the ZACCI illustrates.

> A company with a working capital of K100 million makes a net profit of 50 per cent or K50 million. Very high, but then inflation exaggerates profits. On this profit the company pays 35% tax amounting to K17.5 million. Because of cash constraints, the shareholders receive no dividend. Instead the company ploughs back all the money after tax profit of K32.5 million to start the next year with a working capital of K132.5 million. That looks good. But inflation was 100 per cent, so in order to maintain operations at the level of the previous year the company now needs a working capital of K200 million. Had it not been charged company tax, the enterprise would have ended the year with K150 million to make a loss in real terms of K50 million. Despite that loss, it is assessed to pay tax of K17.5 million. The taxing of illusory profits caused by inflation amounts to confiscation of capital. (Zambia Association for Chambers of Commerce and Industry [ZACCI] Profit, October 1995 p.14)

The above scenario, therefore, encourages more and more individuals into informal investment were they do not pay any taxes. It is important to note that the administrative arrangement of the Zambia Revenue Authority has already begun to bear fruit. For instance, the Chairman of the ZRA announced at a press conference in Lusaka that, for the first time the ZRA was able to surpass Government revenue target in 1995 by 14%, collecting K546bn ($546m) against the targeted K480bn ($480m).

4.8.0 Infrastructure rehabilitation

There can be no exaggerating the critical role played by infrastructure in the establishment of an enabling environment in any country. Raj (1994), in a research study carried out in India, demonstrated that areas/towns or countries with good physical infrastructure facilities are relatively better equipped to attract industrial and commercial activities. The realisation of this fact by the Zambian government has led to some very fundamental decisions being made during this period of structural adjustment, and notable steps have already been taken in the fields of roads and telecommunications.

When the MMD took office in 1991, the road network had almost totally collapsed due to years of neglect. Equally run down were the water reticulation system in all the urban centres and the

telecommunication network. With government coffers almost empty and the crucial role played by our roads in the land locked country fully realised, the government in 1993 devised a fuel levy which was put into an account for the purpose of road maintenance and repairs managed by the Roads Management Board. As roads constitute a major part of the construction industry, the road rehabilitation exercise is dealt with in more detail in the next chapter.

In the area of Telecommunications, the government's first move was to break down the then "giant" Posts and Telecommunications Company into its two main constituency areas of Postal services under the new Zambia Postal Company and telecommunications under the Zambia Telecommunications Company (ZAMTEL). Both companies have been given more autonomy in fixing (market) prices and in everyday management in an effort to improve efficiency. Unfortunately, the business community continue to cry out over poor services, despite the increase in prices under the market economy.

The introduction of the electronic mail and mobile telephones on the Zambian telecommunication market by private institutions are factors that have no doubt helped in enhancing business operations and opportunities. Business information is now readily available on the World Wide Web, offering investment opportunities to investors all over the world.

4.9.0 Impact of Planning and Building regulations on the construction industry

Ideally and in most developed countries, planning and building regulations are normally intended to ensure health, safety, and convenience of all residents. In Third World countries, however, research has shown that most planning and building regulations are inappropriate to local socio-economic conditions and, therefore, only contribute to retarding construction programmes and projects (Habitat, 1985a; Habitat, 1985b) Whereas there are no problems with the safety and health aspect of these two regulations, there is every reason to question the imposition of minimum planning and building standards, which ultimately restrict the number of settlements and buildings that can be allowed to develop (Briscoe, 1988, p. 219; Gakenheimer and Brando, 1987, pp. 133-134). Research in various parts of the World has shown that the imposition of high planning and building standards in the Third World, and in particularly Sub-Saharan Africa have had the effect of promoting foreign imported construction materials or local materials produced by large-scale and often public sector companies (Moavenzadeh, 1987, p. 97). The promotion of the local and small scale production industry in countries like Zambia, is therefore, limited by these outdated colonial planning and building regulations.

Birkeland (1968, p.129) has argued that, rather than impose minimum standards that are a hindrance to the development of new materials and designs, planning and building regulations should consist of :

(a) functional requirements stating in general terms what purposes the building or component should achieve, for example, the structure of a building must sustain the combined dead and imposed load without loss of stability; and

(b) performance standards qualifying minimum measurable levels which must be attained, for example, the thermal transmittance of a wall.

In Zambia, planning and building legislation are governed by the Town and Country Planning Act of 1965, and the Local Government (Urban Building and Drainage) regulations of 1968 respectively. Both laws are basically British colonial planning and building legislation which have not been amended in recent years. The problem with these regulations, especially the Urban Building and Drainage regulation Part IV which deals with materials and methods of construction, is that they are based on specifications of conventional designs rather than on performance standards, i.e. they specify materials and minimum dimensions to be used, such that, should new research and technology come up with better materials that can achieve the same performance standards but with less dimension, the new material fails to meet the requirements of the Act (law).

For example, the building regulations on materials and construction of floor slabs specifies that:

> The ground floor of every new building which is in immediate contact with the ground shall be constructed of concrete of not less than three inches thick composed of not less than one part cement to two parts of approved sand and four parts of approved coarse aggregate laid on a properly consolidated bed (Chapter 480 of the Laws of Zambia, part iv, Section 50 (1) Materials and construction).

This regulation effectively limits the variety of materials and methods of construction used in the construction of floor slabs. It further hinders the future research and development of other types of materials and construction that can satisfy the same safety and health standards as provided by the above regulation. Countless similar examples exist in the Zambian planning and building laws that tend to hinder the future development of other materials and construction methods. Surprisingly, very few respondents, including prominent Zambian architects and engineers saw a need in making changes to these two Acts. An overwhelming 82% and 83% of respondents were of the opinion that adopting appropriate planning and building regulation respectively, would have little or no direct impact on their business. Maybe this only goes to validity Gakenheimer and Brando's (1987, p.140) findings that "suppliers are a clear case of vested interest in higher

infrastructure standards". As is to be expected, the 10% of respondent that advocated a revision in both planning and building regulations were in the timber business and all wanted regulations changed to allow for timber houses in council controlled areas.

Another area in which a change in the building regulation would help the local Zambian construction industry would be in the Act to allow for Clay pipes in sanitation construction, rather than insist on Asbestos and cast iron pipes, which are mainly imported from outside or have a high import component. Allowing the use of clay pipes would encourage the small scale entrepreneurs to venture into their production, thereby contributing to employment creation and at the same time saving the country foreign exchange.

4.10.0 Summary

In this chapter we have seen that, although the Zambian government has tried to create an enabling environment for private sector investment, as prescribed in the theories of the Structural Adjustment Programme and shelter enablement, the enabling environment is far from being achieved. This has been mainly to the fact that both private and public investment has not gone into GFCF, which as a result has been falling. But as Zambia's graduation from the Structural Adjustment Programme (SAP) to the Enhanced Structural Adjustment Facility (ESAF) has demonstrated, much has been achieved in the last 5 years. On the other hand, the most striking reason for some of the failures point to the lack of political will on the part of government to implement in full the Neo-Liberalist conditionalities, especially as time drew near to the September/October, 1996 general elections.

Undoubtedly, the other mistake that the Zambian government made in her effort to create an enabling environment was to delay the implementation of most of these measures, i.e., privatisation and the sale of public housing stock, as little time is now left for the benefits of these measures to filter through in the economy. Looking back at the decision to give away council housing stock built before 1959 free to sitting tenants, and the indecision to tax the growing informal sector, it is very clear that political expediency is taking precedence over economic and developmental matters. Unless this practice is reversed, it is hard to see how long economic sustainability will last in Zambia, and whether private sector confidence will continue in view of continued party political decisions at the expense of national development.

Having analysed the effects of creating an enabling environment on the construction industry and business as a whole, we now move to look at very specific sectors of the construction industry, beginning with construction financing and investment in the next chapter.

5.0.0. CHAPTER FIVE: CONSTRUCTION INVESTMENT AND FINANCING UNDER ADJUSTMENT CONDITIONALITIES

5.1.0. Introduction

In the last chapter we drew attention to the efforts by the Zambian government in trying to create a enabling environment, an environment in which the private sector is supposed to be playing a very important role in the economy, both in the construction industry and the macro-economy. In this chapter, we now turn our attention to the specific aspects of the resultant liberalised economy as prescribed by both SAP and the Enabling Shelter Strategy, and in so doing see how structural adjustment and the liberalised economy have affected the investment and financing patterns in the Zambian construction industry.

This chapter should therefore, be read against the background that the Zambian capital market has over the past years been controlled by way of various restrictive government legislation, thereby creating a situation of capital flight out of Zambia. This situation was brought about as a result of the insecurity that most successful Zambian and foreign entrepreneurs felt consequent to the mass nationalisation that occurred in the late 1960's and early 1970s. Consequent to this, the problem in Zambia has not been so much the lack of capital for domestic investment, but the flight to other countries of capital which would otherwise have been invested in Zambia (Nkhata, 1993, p. 27). Given that investment in real estate requires large amounts of money, for individuals this normally takes a life time savings, a good and sound financial market is of paramount importance to the construction market. Without it, the would-be buyers of houses, offices, and other construction products would have no access to large amounts of funding with which to purchase or finance their construction demand. It follows, therefore, that low construction demand emanating from the lack of financial resources will ultimately result in low construction supply on the construction market.

5.2.0 Investment opportunities in the construction industry

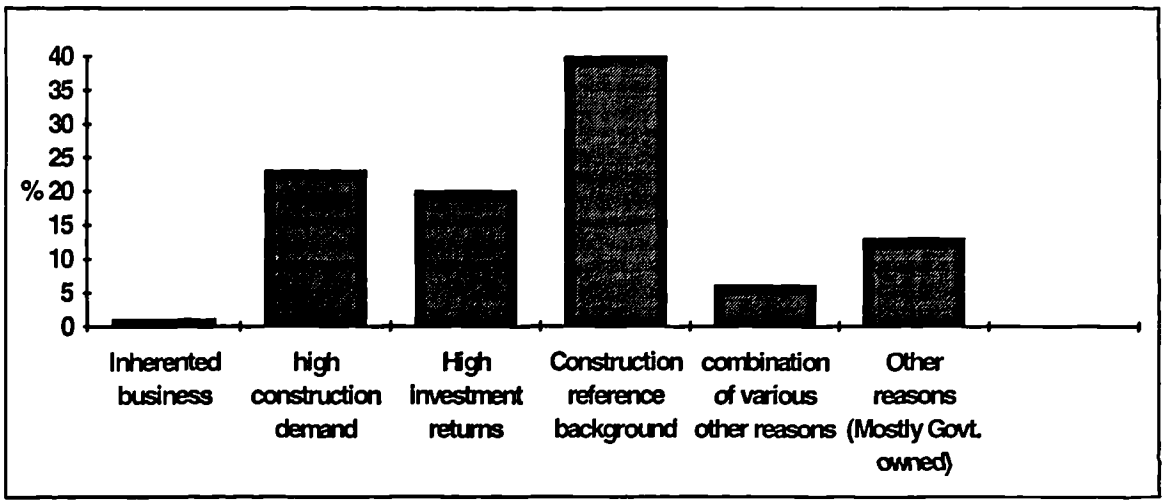
Although we have said that the construction industry plays an important role in national development, it is equally important to note that, in a liberalised economy, individuals and institutions are free to choose what sector of the economy to invest in. This decision obviously takes into account many factors, but ultimately the investor is most interested in the rate of return from his/her investment input. In other words, the construction business is an economic activity just like any other in the economy, at least in terms of attracting both local and foreign private investors. Investors, thus, always have to weigh investment returns in the construction industry with returns in other industries within the same economy and with other construction investments and other business investments in other countries, so as to maximise and safe guard their investment returns. In this regard, therefore, the onus is with national Governments to create secure and attractive business environments that best attract private international capital to invest

in their countries. Every Government is busy trying to attract capital and resources from other countries to invest in their national economies, and to further channel this investment in Gross Fixed Capital Formation amid reduced public sector investment. It is important, however, to make the distinction between investing in construction supply, i.e. construction plant and machinery and construction facilities i.e. schools, houses, roads, offices, and so on. To avoid that confusion, we shall refer to investors in construction plant and machinery (contractors, consultancies, manufactures and suppliers) as construction investors, whilst investors in construction output such as houses, schools and so, will be refereed to as property developers. In making the distinction between property development and construction investment it is important, however, to note that construction investment is directly related to property development, in that increased property development leads to increased construction investment in the construction industry and vice versa. In other words, therefore, property investment is basically construction demand as discussed in chapter two under the subsection titled *construction demand.*

The creation of an enabling environment is important as we have seen in the foregoing Chapter. However, it is equally important that the supporting infrastructure and institutional framework are prepared if some specific industries like the construction sector can be attracted to invest in that particular economy. For the construction industry, support structures, institutions, and facilities like sound and well developed capital and financial markets are needed. Capital and financial markets as we shall see later, are catalysts and engines for the growth of the construction industry. This point, however, should not be taken to mean that the presence or absence of a sound capital and financial market is the only significant factor in attracting and maintaining investors in the construction industry and property developers.

The predominant reason why investors choose the construction industry is because of the background specialisation that they already have, i.e., civil and structural engineers, architects, quantity surveyors, painters, bricklayers, and so on.

Fig. 5.1 Reasons for going into construction business



Source: Mashamba 1995/6 survey data

Ideally there is no reason why we should despair in the fact that the Zambian construction industry consists of about 40% of investors who come in because of the working experience they have had. This is particularly true for the consultancy and contractor sectors of the economy, where government regulations still demand that a certain level of construction skills be attained by the investor/s in the company before it can be allowed to operate. For instance, architectural, quantity and valuation surveying, structural and civil engineering, building and civil construction all need registered professionals before the companies can be allowed to formally practise. In the consultancy sector, the law goes even further to bar such professionals from being employed by non-registered persons. Thus all construction consultancy firms are owned by their appropriate professionals in Zambia. Whereas we are not suggesting that the practise of ensuring that such firms are manned by qualified personnel be discontinued, it is quite absurd to insist that they be owned by such professionals. It surely would benefit the Zambian construction industry if investors without the necessary professional qualifications were allowed to invest and own firms in this sector, provided they employed qualified personnel as required by the law. This would also lead to such consultancy firms being able to float their companies on the Lusaka Stock Exchange (LuSE) as a possible source for extra capital for improvements, modernisation and expansion.

5.2.1 Future investment patterns in the construction industry

Whereas it is very important to attractive potential new investors to the construction industry, it is equally important to retain old and "seasoned" investors within the industry, knowing very well that other sectors of the economy provide equal if not better rates of returns to investors. For example similar studies in Nigeria on the impact of structural adjustment on that country's

housing investment market, environmental improvement and urban productivity levels, found that most small scale investors had switched their investments from building housing for rent to more short-term-return businesses like commercial (trading) and transport activities (CASSAD, 1991). Similar sentiments have equally been expressed in Zambia, by both the Zambia Chambers of Commerce and Industry (ZCCI) and the Zambia Association Manufacturers (ZAM), to the effect that the advent of SAP has seen more and more investors shifting from the productive sector to the mere trading in imported goods (Sanderson, 1993, p18-19). Although this view is not strongly supported by our field data, there is still a strong case for supporting and reassuring existing construction investors. For instance, table 5.1 shows that there are serious reservations from most respondents on the future prospects of the Zambian construction industry.

Table 5.1 Respondents views on the future of the construction industry by sector in %

Thoughts for the future	Getting worse	No change	Likely to improve	Not sure
Suppliers/Traders	24	3	30	43
Consultants	5	43	30	22
Manufactures	34	38	7	21
Contractors	18	33	11	38
TOTALS	**18**	**31**	**19**	**32**

Source: Mashamba 1995/6 survey data

Table 5.1 above, shows the high uncertainty surrounding the construction industry, where 32% of our respondents were not quite sure as to what the future held for them. Equally worrying is the high percentage of respondents, 49% (18+31%) in total who envisaged the current gloomy position of the industry continuing for the next five years or worsening even further (refer to 4.1 which shows continuous declines in GFCF from 1990 and table 4.1 showing minimum new housing stock). Only a mere 19% of all the respondents had positive hopes in the future of the industry, i.e., saw that the likelihood of things picking up. If construction investors are to be discouraged from leaving this industry and invest in other sectors of the economy, they should be encouraged and assured by the government through the necessary construction indicators, like high construction demand and low construction costs.

What is worse about this particular variable, is that both contractors and manufacturers of construction materials, which are more labour intensive than consultancy and material supplying

sectors[1], both recorded lower positive expectations 11% and 7%, respectively, as compared to 30% for both consultancy and materials supplying. If these expectations were to be realised as feared by the respondents, then the programme to create more employment opportunities through the construction industry, as postulated by Tipple (1994b) and Woodfield (1989), will have been greatly curtailed.

However, when the same sample was asked whether they planned to remain in the same construction business in which they were currently engaged, an overwhelming 63% said yes, with only 10% contemplating leaving (see table 5.2). Given the high percentage of professionals and craftsman in the industry, rather than mere investors[2], it is easy to understand the reluctance to leave this industry and pursue other investment opportunities, even though most of them are not optimistic of the future.

Table 5.2 Business plans for the next five years by sector in %

Business plans for the next 5 years	Remain in Constr.	Not sure	Leaving Constr. sector
Suppliers/Traders	63	27	10
Consultants	79	13	8
Manufacturers	63	25	12
Contractors	73	24	3
TOTALS	**63**	**27**	**10**

Source: Mashamba 1995/6 survey data

Of the total 10% of respondents that were contemplating leaving the construction industry, it was not surprising to note that 93% were thinking of going into some other form of business (possibly trading), with 5% thinking of taking their businesses outside Zambia. The remaining 2% just wanted to either retire or simply close down.

5.3.0 Resource mobilisation for Gross Fixed Capital Formation (GFCF)

Among the catalogue of problems facing many property developers to increase gross fixed capital formation in Zambia and indeed many other Third World countries, the lack of financial resources stands out as the most crucial single obstacle (Habitat, 1996, p. 202). The financial

[1]The labour intensiveness of the four sectors of the construction industry are discussed in chapter 6.

[2]By mere investors, we refer to investors who investor in the construction output for profit motive, i.e. selling cement, aggregates and so on, rather that those that have construction qualifications like Architects and Civil Engineers.

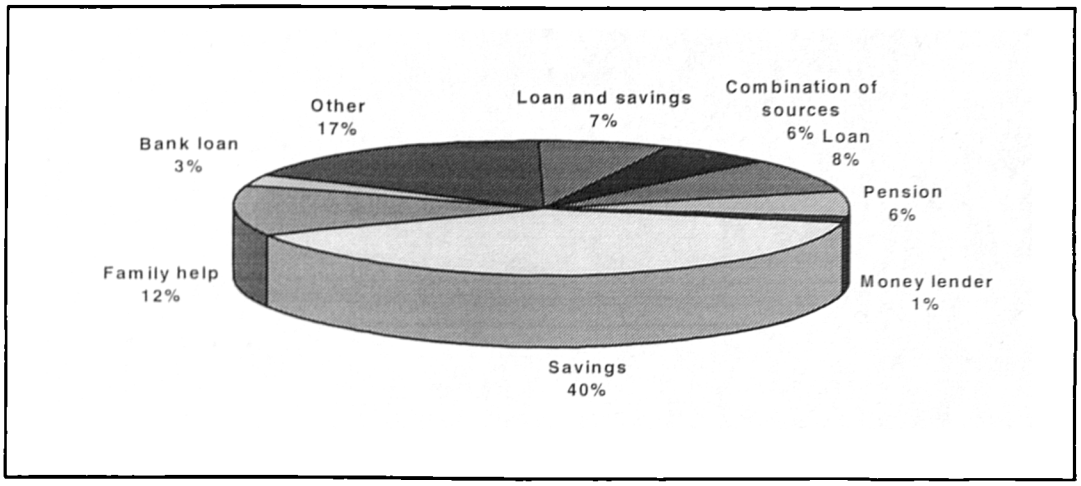
market has not been well developed to deal with the domestic problems, more so with the vast numbers of individuals and households that are prepared to build structures using informal financial arrangements. What is particularly worrying is the revelation in recent studies that up to 70% of capital resources for low income housing is sourced from non-formal financial institutions, and yet most Third World countries continue to ignore this very important sector of their financial market (Abdallah, 1993, p. 5). The quest, therefore, by the Zambian government to mobilise personal and institutional savings from among its citizens, who hitherto externalised their savings for lack of financial security and confidence in the domestic market, is understandable and desirable.

5.3.1 Savings mobilisation

No financial market can be said to survive without a corresponding source of willing and able savers, as after all, the financial market is made up of the interaction between savers and borrowers. The mobilisation of savings is the basis of modern day financial markets, and income is a chief determinant of savings. This means (all things remaining the same) that the higher the levels of income, the higher the expected levels of savings. It is important to note that savers are ordinary individuals or institutions that are willing to postpone their consumption if they can be convinced that the benefits are worth it, in other words they will not lose out in the process but will end up making some sort of gain. In this respect, therefore, low inflation, interest rates, and the feeling of security are the key determinants of the willingness of the people and institutions to save.

In our study we found that the biggest single source of funding for construction companies was from savings (40%) and family help (12%), with the remaining 48% subdivided among pensions, money lenders, and loans from both the informal and formal sectors. Although savings was the single most important source of financing for construction companies, it was also interesting to note that 76% of those companies that used savings as their source of construction finance were founded before 1991: the adjustment period. This does not come as a surprise, considering the very high bank base rates that have been prevailing in the country, immediately after the liberalisation of the Zambian financial market. During the adjustment period, the total percentage of companies using savings as a source of construction investment fell to 34% from 40% prior to the Adjustment period. The fall in the savings source was thus taken up by an increase in family help 12% to 19% during the same period. Not surprisingly, there was also a total reduction in bank and informal money lending as a source of construction finance during the adjustment period. This can only be attributed to the very high interest rates that continue to prevail in the Zambian economy.

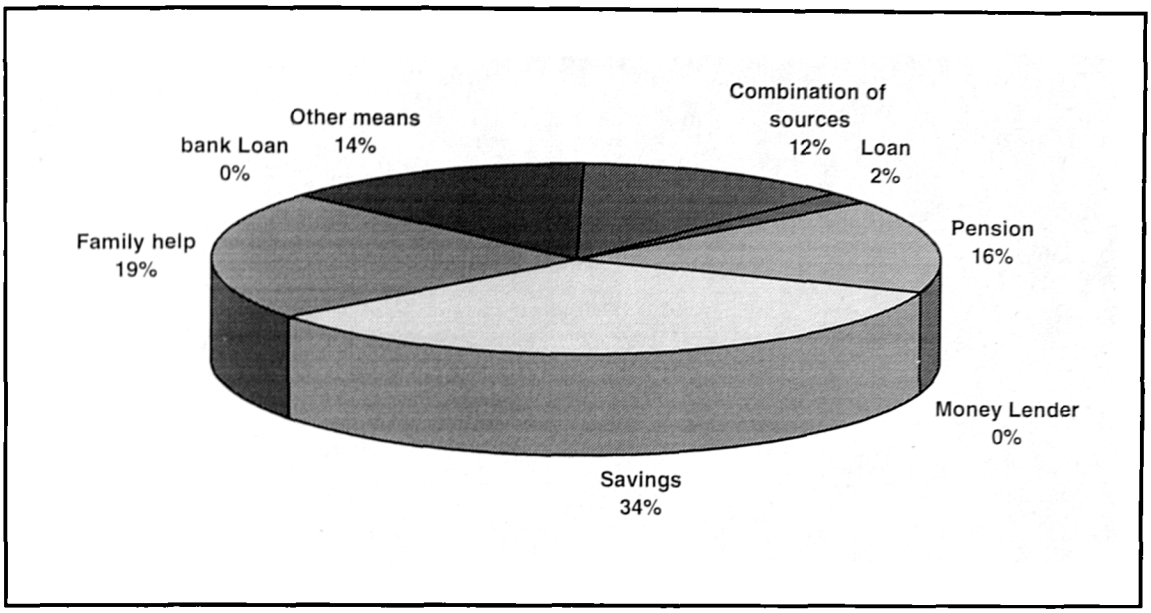
Fig. 5.2 Sources of construction finance (up-to 1990)



Source: Mashamba 1995/6 survey data

Note, however, that there has been an increase from 6% to 16% in the use of pension funds in financing construction investment in the last five years as compared to the period before Adjustment in just 5 years. One possible explanation for this is the high number of retrenchments in the public sector that have been witnessed in the period under review, and these people having to set up their own construction companies in the private sector. This explanation carries more weight if we consider the fact that 38% of all those engaged in the construction industry went into this type of business because of the construction expertise that they possess. What was surprising, however, was the very low number of people, especially from the informal sector, that had relied on informal sector lending as their main source of construction finance. There is no significance difference in the use of informal sector loans to finance construction investment, prior and after SAP in 1991. This was only 1% prior to the Adjustment era and 0% during the Adjustment period. One possible explanation to this is the fact that informal sector lending is, by and large, an illegal activity in Zambia, and most respondents opted not to "incriminate" themselves by stating the true source of their finance.

Fig 5.3 Sources of construction finance for firms formed between 1991-1996.



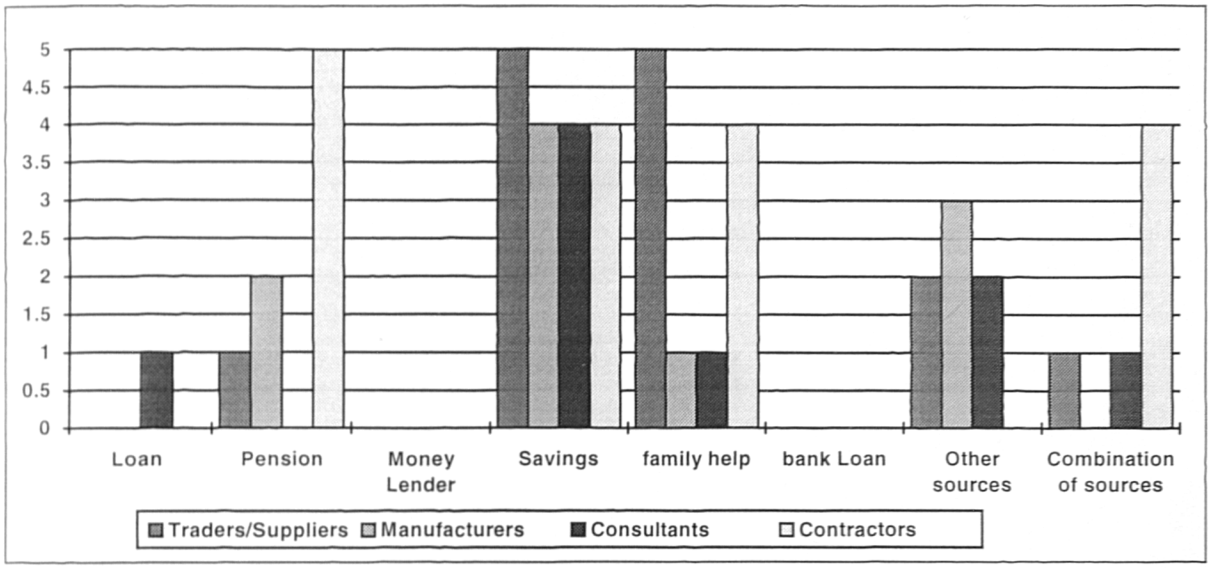
Source: Mashamba 1995/6 survey data

Another striking observation, comes from looking at the sources of construction finance of all the companies formed during the adjustment period, when broken up into their individual sectors, i.e., Traders, Manufactures, Consultants and Contractors. In this instance, all the companies that financed their initial investment through loans were in the consultancy sector and all of the loans were non-bank loans. Another distinct feature about consultancy companies is their reliance on formal structures for investment sources. These would be in the form of savings (money realised from private commissions-moonlighting) rather than the more personal and unorthodox methods of pensions and family help. Given the highly skilled personnel encountered at this level (consultancy), it is understandable that they should prefer the more western and formal investment structures.

The picture is somewhat different with the less skilled levels encountered when looking at traders/suppliers and contractors which are dominated by less skilled entrepreneurs. With traders and contractors we see a large percentage of companies relying on the more personal sources of family help, savings and pensions. In view of Government intentions to strengthen the small scale construction companies, it is, therefore, important to take note that small and less skilled construction companies are largely dependent on informal and more personal sources of construction finance. Clearly our data points to the fact that providing more money for construction investment and financing through conventional bank loan facilitates is not a an option that would assist most small and medium scale construction firms, considering the very

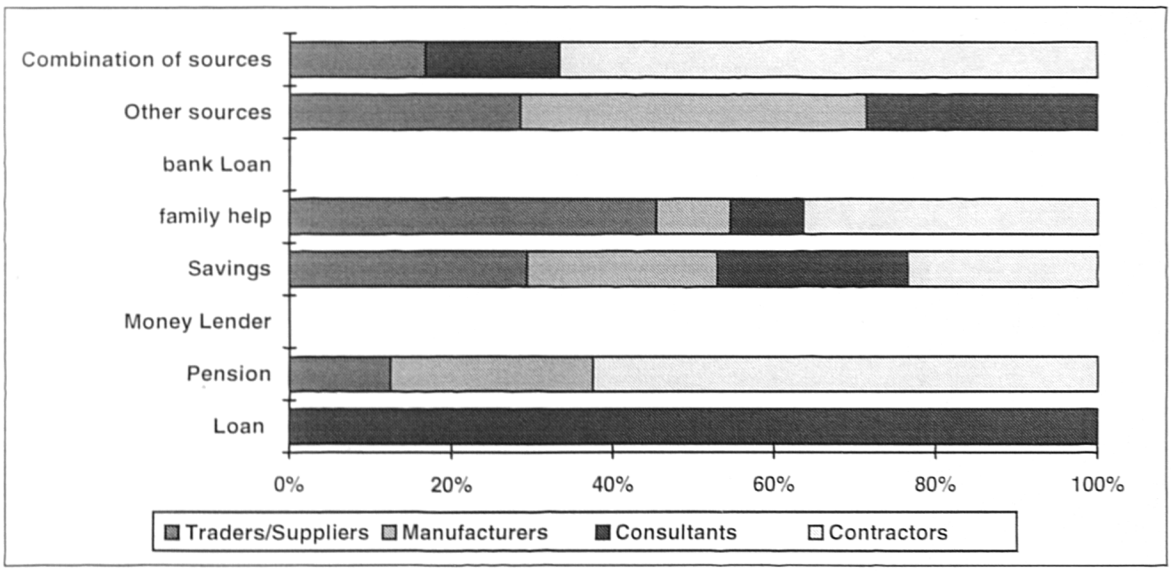
low percentage (0%) of respondents willing and able to take advantage of the bank loans through the current bank structures. We shall elaborate on this subject under subsection: *5.6.0 The role played by commercial banks.*

Fig. 5.4a Sources of construction finance by Sector (1991-1996)



Source: Mashamba 1995/6 survey data

Fig. 5.4b Sources of construction finance by sector in % (1991-1996)



Source: Mashamba 1995/6 survey data

5.3.1.1 High inflation rates

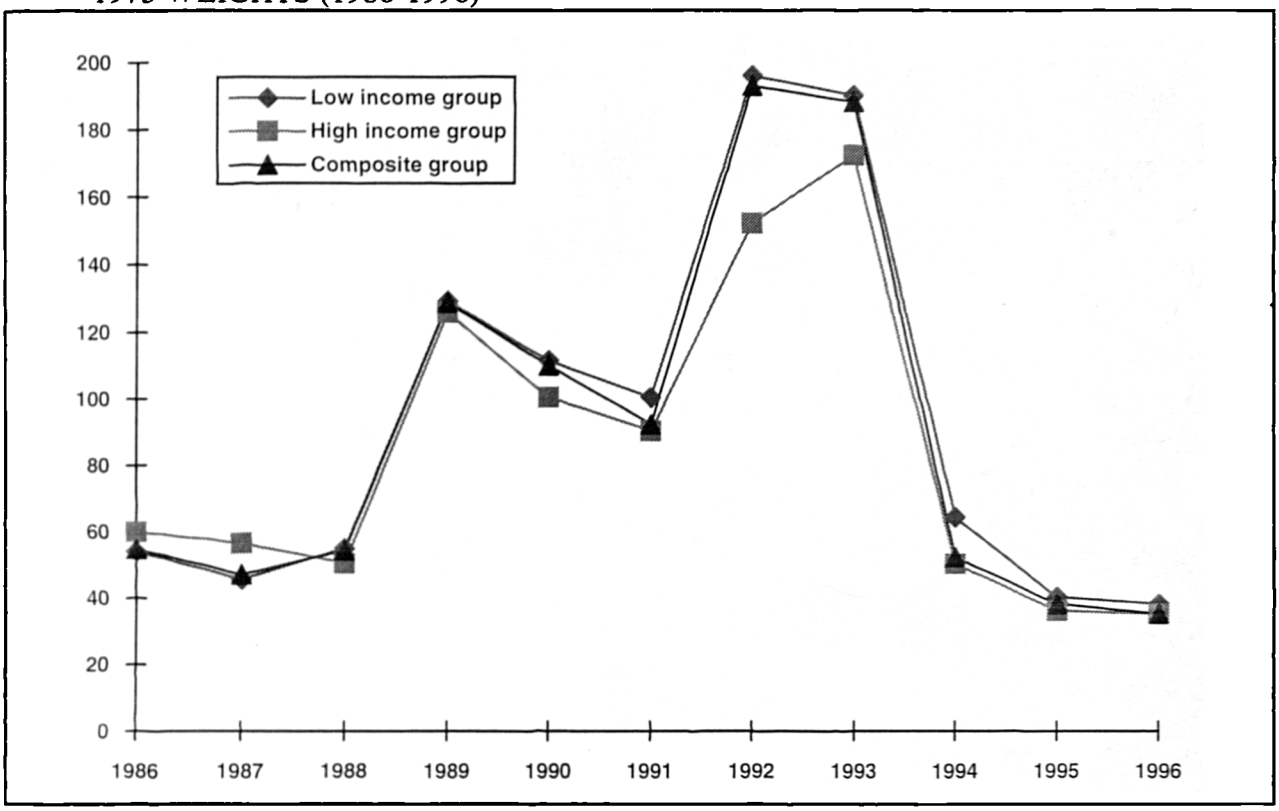
When looking at construction investment and financing during the past 5 years of Structural Adjustment, it is of paramount importance that we also take a critical look at the varying rates of inflation that have been prevailing. In so doing, we shall also take a look at the in-built measures of fighting inflation within the Structural Adjustment Programme, and see how far this affected the Zambian economy and the construction industry in particular. Inflation is said to be the fall in the value of money as prices increase. Since inflation erodes the value of money, it can therefore, be taken that savers will lose out on their savings if the rate of interest is below the rate of inflation. In this instance, it is generally assumed that would-be savers would then prefer to buy real estates, whose values tend to go up with the rate of inflation to offset losses due to inflation. This phenomenon thus translates into a situation of boom-times in the housing and real estates market in times of high inflation, as savers try to fend off inflation. Indeed this has proved to be the case, at least in the Western World, but can the same result be replicated in the Third World like Zambia?

The Structural Adjustment Programme and the Enabling Shelter Strategy can both be said to be inherently inflationary in their nature, at least in the short term and immediately after their application, as subsidies are removed and market prices are introduced. In the medium and long term, however, prices are then expected to stabilise, and the rate of inflation is expected to fall as well (Sinha, 1995). This phenomenon has been manifest in Zambia, where almost all subsides on basic goods and services were removed, raising inflation to unprecedented levels. The liberalisation of the foreign exchange controls was one other important component that also helped in pushing up prices and inevitably inflation, especially for those goods and services that are imported into Zambia. In actual fact the prices of almost everything went up because of the corresponding increase in the price of fuel. The price of fuel is always fluctuating because it has to be imported from outside using the market foreign exchange and, then transported to landlocked Zambia, through other countries.

By the end of the year 1992 (after a full year of adjustment policies), inflation had reached its peak at 191.3% p.a., see fig. 5.5 below. Apart from the obvious implications of such a steep rise, the net effect on the construction industry was a slow down of construction activities, and an increase in the rate of abandonment of existing construction sites, as original budgets were over-shot by inflation and the cost of borrowing more than doubled. This would explain the very high rate of abandonment of construction projects during the last five years. Our study found that the rate of construction abandonment reached 27% in the consultancy sector and only 7% for

contractors, indicating that most construction projects were cancelled at "drawing board stage" rather than on site.

Fig. 5.5 Annual average inflation rates based on consumer price indices
1975 WEIGHTS (1986-1996)



Source: Economic reports and Profit (various)

We have already pointed out that adjustment policies are inherently inflationary. It must equally be said that adjustment policies also have in-built measures to fight and reduce inflation, given its adverse effects on industry and long term economic stability in the macro-economy. It therefore came as no surprise when, towards the end of 1992, with inflation at almost 200%, the Government quickly introduced some stabilising measures in the economy in an effort to arrest the run-away (hyper) inflation which was hitting industry and consumers. The key measures taken included the introduction of the "cash budget" and of the issuing of Treasury bills, liberalisation of the commercial banking loan rates, and the increase of the reserve ratio for commercial banks in an effort to reduce liquidity in the economy. No doubt these measures had their desired effects, as inflation was successfully brought down from 193% at the end of 1992 to about 36% at the end of 1996.

However, the consequence or rather the side-effects of the above anti-inflationary measures to the Zambian economy, and the construction industry in particular, were devastating. These measures had the net effect of squeezing private credit and ultimately restricting (construction) demand. For example, the introduction of the "Cash Budget[3]" system meant the postponement of most public construction projects by the Zambian Government. Capital rather than recurrent expenditure was always sacrificed by the Government in order to reduce inflation, because it is always easy for Government to get away with the postponement of capital expenditure rather than tamper with recurrent expenditure like wages and salaries for civil servants and public workers for obvious political reasons. Although there has been much talk of infrastructure rehabilitation as part of the structural adjustment programme, little or none has actually taken place, at least not with public funds. It is no wonder that when asked how much the government programme of infrastructure rehabilitation had helped his construction business, the Managing Director of Apollo enterprises, a large scale civil and building contracting company, simply asked satirically in return "What infrastructure rehabilitation programme? Where? Here in Zambia?"

The reduction in Government's budgetary allocation for capital expenditure is illustrated further in Government's own records which show that, whereas in 1995 the government's recurrent expenditure of K445,155 million ($445m) was exceeded by almost 19%, capital expenditure was reduced by 45% from the budgeted K82,125m [$82.125m] to only K48,254m [$48.254m] (Zambia, Republic of, 1996, p. 38).

5.3.1.2 High interest rates (Base rates)

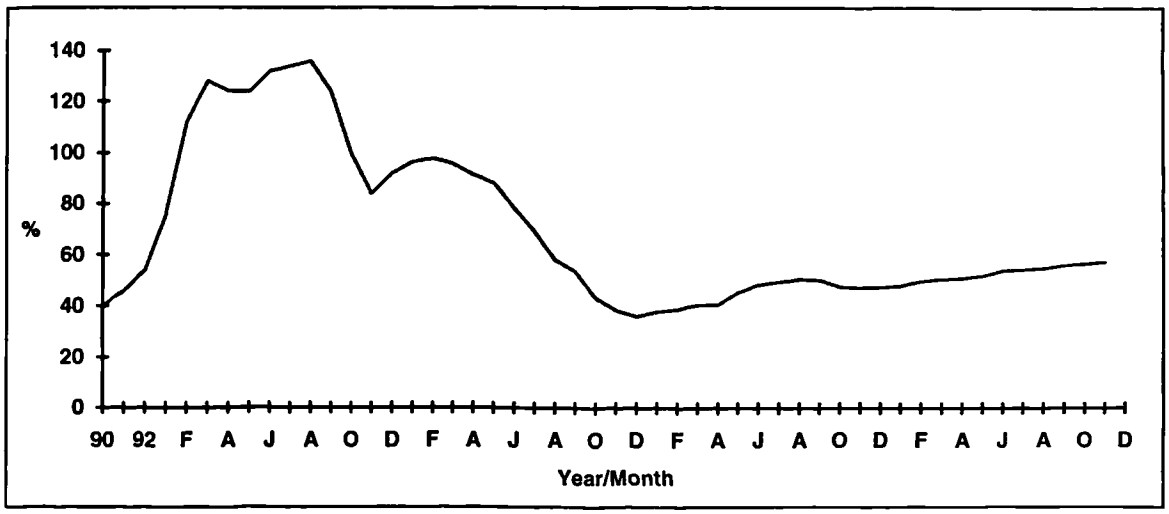
Another important component affecting savings and consequently construction investments and finance involves the movements of commercial bank (base) rates. Commercial bank base rates have been observed to run almost parallel to the rates of inflation, although there is a noticeable time tag between them. It is not surprising, therefore, that, during the period 1992 and 1994 when inflation was at its highest in Zambia, some commercial bank base rates also reached unprecedented levels, peaking at an average rate of about 100% with savings and fixed deposits interest rates concurrently running at about 65% and 80% respectively (Profit, various between 1993-194).

Although the above drastic rise in base rates can be attributed directly to the monetary squeeze brought about under the Structural Adjustment Programme, the introduction of treasury bills by the government as a source for debt serving almost at the same time exacerbated the rise. With

[3]Cash Budget system of accounting refers to a type of budget in which the Government only makes available money for items if and when that money is available in government coffers.

about 43% of Zambia's $6.3 billion dollar debt owed to multilateral creditors and not, therefore, eligible for rescheduling, there was no way that the Zambian government could have included debt servicing on the "Cash Budget," hence the introduction of Treasury Bills to finance this aspect of the budget (World Bank, 1994, pp. 78-85). The credit squeeze brought about by the cash budget and treasury bills on the monetary market, therefore, meant that government had to come up with excessively high short term rates if the scheme was to work, and it would appear that this is exactly what happened.

Fig. 5.6 Commercial Bank interest (base) rates between 1990-1996



Source : Profit (various), from 1990-1996

Three types of treasury bills were introduced, 28, 91, and 128 day bills, with the immediate consequent of raising interest rates on the financial market. The very attractive rates for treasury bills also meant that there was an apparent deviation of capital from the productive private sector, i.e., construction and manufacturing, to these short term securities. Short term securities were not only risk free, unlike construction and manufacturing businesses which can sometimes incur losses, but also guaranteed real investment returns of over 100% within a year, compared to the relatively low 40% returns associated with the construction and manufacturing industries (see rates in appendix II). Not surprising, 80% of the respondents were unhappy with the effects high interest rates were having on their businesses, compared to only 7.5% who said they were satisfied with the prevailing rates. The other 12.5% of the respondents were not sure whether the prevailing high rates were working to their advantage or not. Given the very high interest rates from treasury bills which have been well above the rates of inflation, it is surprising that some private investors are still engaged in these other forms of businesses, with all the business risks

involved, when they can simply buy Government treasury bill and be guaranteed huge profits after 28, 91 or 128 days.

To illustrate our point, let us take an investor interested in investing say K6m in the Zambian economy. With K6m he/she can build a low cost house of 50 square metres (at current rates of K120,000 per square metres, but excluding land costs and consultancy fees), and rent it out at a maximum rate of K150,000 per month in Lusaka (K80,000 in Kitwe), less 15% Government withholding tax on rental income; leaving a monthly income of K127,500 (K68,000 in Kitwe). However, investing the K6m in Treasury bills or a fixed deposit account with a 50% interest rate (p.a.) would give the investor K212,000[4] as his/her first monthly return, and the sum would be increased in subsequent months. Given the acute problems of securing serviced land in the three cities, it is easy to see why most investors will prefer to invest in high yielding securities than in housing or real estate.

High interest rates have also worked against the construction industry, as public resources have gone into servicing the huge internal debt. The debt was mainly a result of donors' withholding and/or reducing their aid commitment to Zambia, following the MMD's government change of qualifications for aspiring candidates in the 1996 Republican Presidential elections. Consequently, increased internal borrowing in 1996 resulted in the Government having to pay a total of K98bn on interest repayments for its loans with Commercial banks in the first three quarters of 1996, and yet only K32bn was spent on capital programmes in the same period (Financial Mail, 17/12/1996). Bilateral and multilateral aid agreements not only have lower rates of interest[5], but also have longer repayment periods, which makes them more economical than borrowing from Commercial banks, especially with market rates of over 50% p.a.

5.4.0 The Lusaka Stock Exchange (LuSE)

In capitalist societies, the Stock Exchange has always been the traditional arena for trading in existing securities. Shares are bought and sold on the stock market and ownership of industry can easily be changed by the number of shares owned. By offering shares on the Stock Exchange, it is, therefore, possible for the company to raise capital for its operations. By the same token, a new company can raise its initial capital on the market by selling new issues. The advantages of the stock exchange in raising capital for industry lies in its ability to offer many shares priced in small amounts, thus attracting both small and large investors, without necessarily involving them in the day to day management of the company. With the Government already having made its decision

[4] 6,000,000 x 50/100 x 1/12= 250,00 less withholding tax on interest of 15%, thus K212,500 per month.

[5] Previously Zambia was borrowing at rates of about 5-8% from the IMF and the World Bank under SAP, but following Zambia's graduation from SAP to ESAF in 1996, the rate has been reduced to 0.5%.

to withdraw from active participation in industry and the economy as a whole, the establishment of a stock market in Zambia was, therefore, a positive step by the Government, in an effort to raise investment and productivity in Zambia.

To this end, the Lusaka Stock Exchange (LuSE) was opened on the 21st of February 1994, with great expectations that this move would help in mopping-up small individual and institutional savings in the economy and then channel them onto the productive sector. After two years of slow business, and with only eight companies trading, the Government has given a tax incentive to all those companies that will trade their shares on the LuSE, in the form of a reduction of company tax paid to Government from 35% to 30%, beginning from the 1st. of April 1996. It is, however, too soon to judge the effectiveness of this 5% company tax reduction on encouraging many other companies to list their shares on the Lusaka Stock Exchange. Other incentives given by Government include the non-payment of property transfer tax on listed securities and capital gains tax. With such attractive incentives and innovative ways of re-capitalising ailing companies, it is hard to understand why parastatals and other firms in the construction sector, like the National Housing Authority (NHA) and the Zambia National Building Society (ZNBS) have not taken up this challenge.

The privatisation and subsequent listing of Chilanga Cement PLC the sole cement manufacturer in Zambia on the Lusaka Stock Exchange, has demonstrated that stock exchange flotation can be one of the best ways of re-capitalising ailing (public construction) firms, especially in this era of high interest (base) rates. We shall have more to say on the achievements of Chilanga Cement in meeting local and export orders in Chapter seven, when we shall examine the industry's response to the Structural Adjustment Programme and the Enabling Shelter Strategy in increasing productivity and supply.

5.5.0 The role of the Building Societies

Historically the state owned Zambia National Building Society (ZNBS) has been the sole financial institution concerned with the financing of housing and other real estate (on the demand side), since the nationalisation of all other building societies in Zambia in 1968. The Structural Adjustment Programme has since ensured that the building society market is fully liberalised with the amendments to the Zambia Building Society Acts No. 46 of 1968 and No. 67 of 1970, which now allows for private competition in this market. In the strict legal sense, the Zambia Building Society Acts No. 46 and 70 of 1968 and 1970 respectively did not bar any private entrepreneurs from establishing their own building societies in competition to the ZNBS. What they did was to

instil fear of nationalisation in any privately owned building society so that no private building society was ever set up during the Second Republic.

It must be emphasised here that the main criticism with monopolies and state ownership of Building Societies lies not so much on the type of ownership, but with Government intervention in the day to day management of the Building Society. The Governments got involved in determining mortgage rates, drawing up of criteria for mortgage borrowing, and the appointment of the society's directors and managers. It is for this reason that the liberalisation of the building society market was hailed with such great expectations within the construction industry, especially that house prices have gone up and out of the reach of most Zambian savers. There were hopes that competition in the building society market would work in the customer's advantage.

Unfortunately and contrary to expectations, the liberalisation of the economy and the building society market, which started in earnest about 1991, has failed to witness an influx of new building societies to compete with the ZNBS. Whereas, for example there has been a number of new commercial banks established in Zambia, only one new building society: Finance Building Society (registered on the 20th of March 1996) has so far been established. Finance Building Society was formed with a pledge to customers to focus on "the provision of attractive and competitive investment rates." Nothing was said about offering competitive mortgage rates to borrowers. Not surprising, therefore, when the new Finance Building Society finally opened its doors to customers on the 15th of July 1996, its mortgage rates set at 55% were no different from its competitor the ZNBS.

As to what impact this new building society will have on the market remains to be seen. But going by the existing high bank (and mortgage) rates prevailing in the country (at about 53-60%), it is doubtful that this new Building Society will have an immediate effect on the housing market. In the long run, however, when mortgage rates and interest rates eventually come down, competition between building societies will help in bring down mortgage rates and enhance efficiency in the market.

For the moment, the very high mortgage rates which have remained constant at about 50-60% for some time, continue to be a very crucial stumbling block to many people's having access to mortgages to finance their housing dreams. One branch manager of the Zambia National Building Society actually confessed in an interview that, in the last 3 years, the society had relied solely on business from its banking operations (savings accounts) rather than on mortgage lending. It was

further revealed that this same branch had not lent out money for mortgages for the first 9 months of 1995! When asked why this was so, the manager simply answered, "At current mortgage rates, not even people with well paying jobs like yourself can afford our mortgage rates". It was further noted that, even with the Council's having to sell their low cost houses (then going at between K2-4m [$2,000 to 4,000]), none of the tenants had even bothered to find out their mortgage entitlement from this particular branch of the ZNBS!

5.6.0 The role played by Commercial banks

Commercial banks are not a traditional source of finance for long term construction finance like housing and real estates, because of the long term repayment periods involved, although they do sometimes provide some form of financing. In Zambia commercial banks have tended to favour agriculture, manufacturing, trading, transport and communications, mining and building and construction in that order (Zambia, Republic of, 1996, p. 40). The bias against lending to the construction industry is further compounded by the fact that the Zambian Government's own treasury bills offer very attractive short term rates[6] whereas lending to the construction industry involves a number of years before repayments, let alone profits, start coming in. The use of capital realised from treasury bills by Government to finance recurrent expenditure only goes to 'fuel' inflation and further depress the productive sector of the economy.

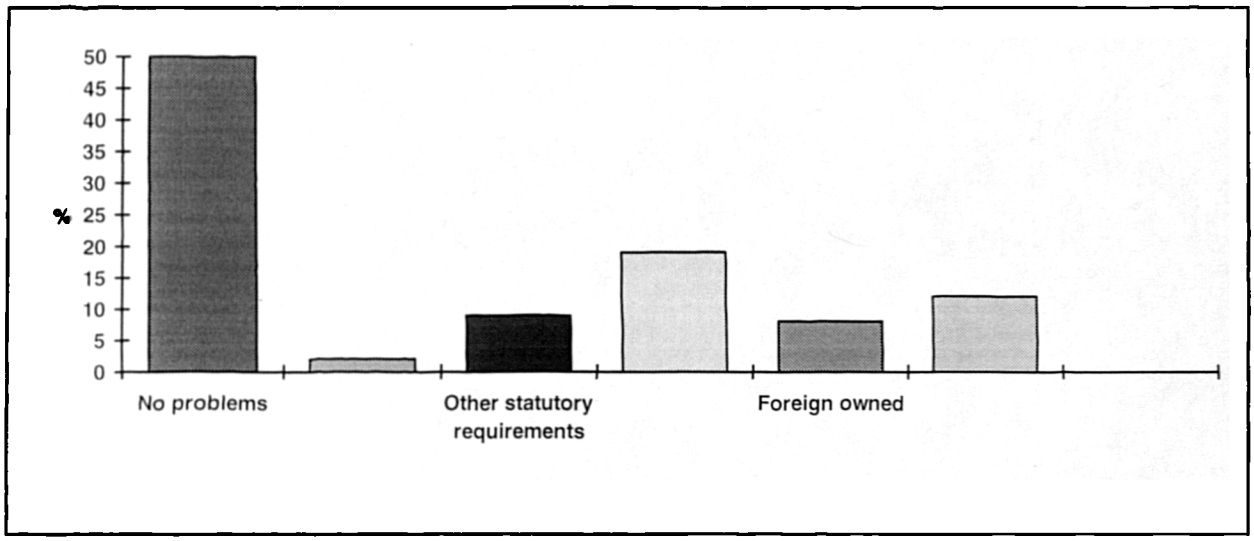
Another significant factor that has led to the marginalisation of commercial banks as a source of construction finance in Third World countries, and Zambia in particular, is the insistence by commercial banks on the formal prerequisites to lending (based on developed countries) of collateral, monthly (periodic) payments, and certificates of registration for companies. Yet it is a well known fact that much lending goes on in most Third World countries based on informal lending principles. For instance, we found that, from the 11% of respondents that got loans to finance their businesses, only 3% got their loans from the commercial banks, whilst the other 8% got theirs mainly from friends and relatives. Whereas there has been a more than 100% increase in the number of commercial banks operating in Zambia in the last 5 years, mainly due to the liberalised economy, there has been a surprisingly fall in the number of construction companies obtaining loans from commercial banks in that same period (see fig. 5.2 and 5.3), from 3% prior to the 1991 to 0% during the Adjustment period. The main reason for the fall in these numbers has been the very high interest rates charged by commercial banks (which once reached 110%). Although inflation has equally been very high, which should have made borrowing still cheaper in the long run, the lack of business and the difficulties in getting stage payments (as we shall see

[6]See appendix II

in Chapter seven) has meant that keeping up with bank repayments has been very difficult if not impossible for most companies.

Although so far there is no known record of any construction company having gone bankrupt for failing to settle periodic payments, unless the operational standing of these companies improves, it is almost certain that those companies that took bank loans and have yet to finish repayments will come or have come under increasing pressure of high interest rates. Luckily, as we have already seen, our study suggests that very few construction companies are financed through bank loans.

Fig. 5.7 Problems in obtaining financial assistance from commercial banks



Source: Mashamba 1995/6 survey data

5.6.1 The loss of savers' confidence (in the Zambian Banking system)

The liberalisation of the economy by the government in 1991, also saw the emergence of more private and indigenous banks in the Zambian financial market, which had hitherto been dominated by state owned and foreign owned banks. However, the austerity measures that have accompanied the liberalisation of the economy (of which high interest rates have been the greatest concern) have also meant that very few of the bank customers are able to repay their loans and other obligations to these banks, rendering most banks vulnerable to collapse. Indeed, that is exactly what happened in the latter half of 1995, when four of these indigenous banks all collapsed (three of them in a period of two months). The first bank to close with the loss of customers accounts was Capital Bank in May 1991. This was followed by Meridien Bank

(Zambia) in May 1995, Commerce and African Commercial Banks in November 1995, and finally the Co-operative Bank in December 1995.

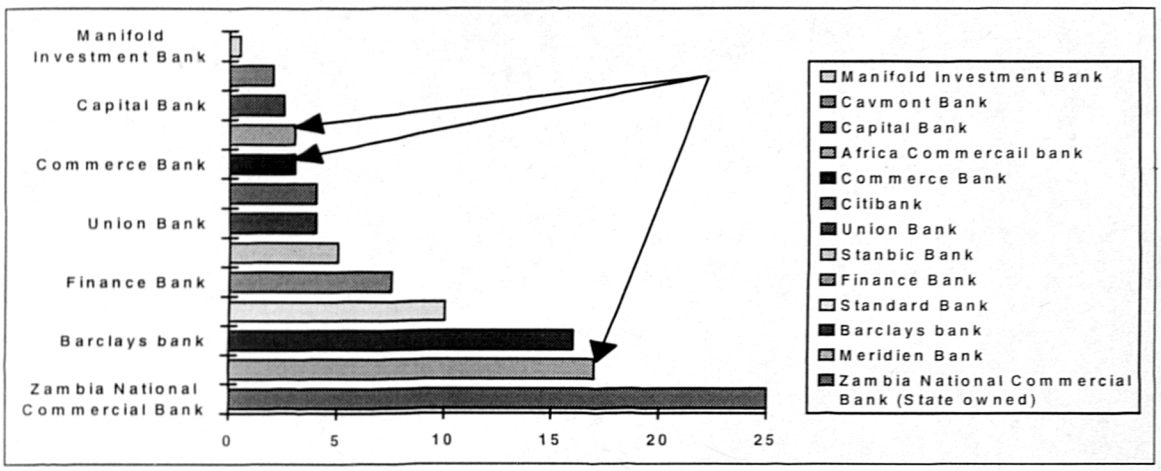
Although commercial banks in Zambia do not play an important part in construction financing, they do remain an important source of mobilising savings from small time savers to the (big) capital market. It is, however, important to note that savings mobilisation is entirely dependent on savers confidence in the banking system. The absence of savers' confidence can, therefore, be very costly to an economy, especially one like Zambia which is trying to reduce inflation and promote production through the mobilisation of savings from both individuals and institutions.

The direct impact on the economy of the loss of these banks, apart from obvious direct job losses, was the loss of millions of Kwacha by individuals and companies (including construction companies) that held accounts there. Money which would otherwise have been used in the economy, and in the construction industry in particular, was lost and more job losses resulted throughout the economy. The problem was made worse by the fact that one of the banks (Meridien Bank-Zambia) was, by then, the second largest bank in Zambia, and its closure was linked to unorthodox lending of money to the ruling Party the MMD, without any form of collateral. As if that was not enough, the Zambian Government is said to have pumped in an estimated K150bn ($150m) of state money to resuscitate it against Bank of Zambia regulation and advice. Yet at the same time governments in the rest of the World were busy taking over the operations of Meridien Bank (International) for the sake of their customers and national economies (Bull and Simpson, 1995, pp. 15-20). The Bank of Zambia Governor was subsequently reported to have been fired for refusing to commit public money to rescue Meridien Bank, resulting in the appointment of a new governor and the bailing out package going ahead, although it still failed to rescue the bank (Times of Zambia, 26/11/95).

Arguably, the collapse of these three banks has little to do with the Structural Adjustment Programme and enabling shelter strategy per se, but it is very clear that, in the quest to promote more private and indigenous banks, little attention was paid to policing and supervising these banks. Consequently the national economy has suffered as a result of the low investor confidence in the Zambian financial market, rather than benefiting from the envisaged trickle down effects. It is not surprising, therefore, that, after this banking fiasco and the alleged K150bn ($150m) attempt to rescue the bank failed, the government immediately introduced many new taxes and even printed money in an attempt to arrest the situation, more especially to balance its books for the un-budgeted rescue package. The Government has since introduced new banking legislation to prevent the situation recurring.

The collapse of these indigenous banks has resulted in the steady rise in interest rates, which had hitherto been brought under control[7], and the erosion of customer confidence in our financial market, at a time when private capital is expected to play a very vital role in raising local investment and production. The trend for Zambians to keep their savings and income in foreign banks and countries is surely bound to continue.

Fig 5.8 Market share of Commercial Banks in Zambia: as at January 1995 in %



Source: Profit, June 1995, p. 19 (Arrows added to indicate the closed banks)

5.7.0 Informal sector financial market

Although the above problems in the Zambian financial market are on the extreme end of the financial market in the Third World, they are by no means an exceptional case in the sort of problems that continue to besiege these countries. The absence of appropriate and well developed financial and capital market in most Third World countries has consequently led to the emergence of a strong and vibrant informal financial market in its own right. According to Dr. Lawrence Clarke, the Deputy Governor at the Bank of Botswana, in virtually all Third World countries, only up to 25% of all household investment is financed by the formal financial market (Clarke, 1993, 28). Dr. Clarke's statement implies, therefore, that more than 75% of all household investment in the Third World is financed by informal sector finance. Whereas, this statistic may not come as surprise to many scholars dealing with Third World shelter issues, it is difficult to understand why the informal finance market is largely ignored by the host Governments.

A one week seminar organised by the Zambia Association of Chambers of Commerce and Industry to look at the problems faced by small and medium scale entrepreneurs in Zambia identified the lack of access to loans by medium and small scale companies as the major problem

[7]see fig. 5.6

inhibiting the growth of the Zambian export base (Financial Mail, 30/7/96). If, indeed, the formal sector lending institutions are not helping the medium and small scale companies, it should therefore, not come as a surprise that the informal sector financial market has taken advantage of this situation to promote its own activities. In Zambia, for instance, informal sector lending goes by the local name of "Kaloba" and normally attracts interest rates of about 100% per month. Although this practice is very wide spread even among the educated people, it is still technically illegal in the eyes of the law. In view of the great demand for loans and the unwillingness by the formal market to help, it is important that governments, and particularly the Zambian Government, recognise this market and regularise it before it is lost to unscrupulous people. Here we have in mind drug barons and their money laundering activities which are well documented in other countries. This worry is real if we consider the fact that, in the very recent past, the Zambian Drugs Enforcement Commission (DEC) has been seizing large amounts of money, amounting to K1bn ($1m) in cash, from drugs barons in Zambia, and the fear is that this drug money will find a ready market (if it has not already) from the desperate households excluded by the formal market (Grant, 1994, pp. 23-41).

5.8.0 Financing public construction programmes

Despite the introduction of the market economy based on the user pays principle, especially in the construction market, it is important to note that there still exists the need for public construction programmes to be undertaken by the Government and other public organs. Construction programmes that still fall under public domain include the national road network, hospitals, schools, universities, buildings for the police and security forces, and Government buildings. Some of these public sector activities are now slowly being privatised and put in the hands of the private sector. Education and health are being lined up for what the Government calls "autonomous and self sustaining bodies," meaning that these bodies should generate enough funds to fend for themselves. In the meantime, however, the Government still has the obligation to fund public construction programmes but, in view of the severe economic problems already alluded to in our study, the Zambian Government has now come up with new ways and means of financing some of these programmes, albeit within the framework of the Adjustment programme and its affiliated policy of shelter enablement.

In this connection, therefore, the overriding principle in sourcing finance for public construction programmes has been the idea that the users of that service should pay for its use and that no government subsidies should be used. Where possible also, it is Government intention that the private sector should be encouraged to provide some of the services on commercial basis that have hitherto been provided by government. Already we have seen private schools, clinics and

hospitals emerging under this scheme. For those services that still remain in public hands, user fees have been introduced, for example in education and health, fees have already been introduced, and most hospitals and schools are being rehabilitated using money collected under the fee scheme. Sadly, despite the Government deliberate policy to rehabilitate public infrastructure, maintenance works still only accounts for a fraction of all construction works in Zambia. For example, we recorded from our field data that, of all construction works commissioned, 46% were for completely new works or extensions, 41% consisted of a combination of 75% new works and the 25% maintenance/repairs, and only 13% were mainly maintenance or repair jobs. This finding is consistent with findings by Edmonds and Miles (1984, p.10) in other African countries, where repair and maintenance work was found to be on average less than 15% of total construction output.

Plate 5.1. Example of Government owned school still in need of repairs- Chilenje South Primary School in Lusaka

Admittedly, the fees that have so far been introduced fall short of what is needed to rehabilitate and maintain the infrastructure, but this scheme of user pays, has saved the Government millions of Kwacha. From the stand point of the construction industry, however, the most important factor to come from this scheme was the ability of most public institutions to contract repairs and routine maintenance. Examples of this include the rehabilitation works at the Kitwe and Ndola

Central Hospitals and the University Teaching Hospital in Lusaka, and primary and secondary schools throughout Zambia that are constructing security fences and repairing leaking roofs and broken glass panes. The beauty of it all is the fact that most of these works are at a small scale and thus only attract local and small scale labour intensive contractors.

5.8.1 Fuel and toll gate levies

The neglect of the road infrastructure network in Zambia prior to the Third Republic[8] was so widespread and worrying that it quickly became an election issue in the 1991 presidential and general elections. Promises were made by all political parties to rehabilitate the road network within the shortest possible time, although none of the parties was able to show the electorate how that was to be achieved. On assuming office in October 1991, it soon became apparent that the new MMD government had underestimated the magnitude and extent of the financial resources that were needed to carry out the road rehabilitation exercise through out the country. For instance, in the first two years in government, with the structural adjustment programme in full flow, the government was very much relying on donor funding to finish off road repairs on the national network that had been started by the previous government, totalling about 37,190 Kilometres. It thus became clear that other innovative and cost saving measures had to be sought if any meaningful results were to be seen within the Government's term in office.

It was in this connection, therefore, that the government introduced the fuel levy in 1994 and the National Roads Board to manage and administer this fund. The administrative arrangement for this fund was that, for every litre of fuel bought at filling stations, the government through the Board would levy K10 without subjecting it to VAT, and in turn use this money to maintain the road network in the country. The levy was subsequently increased to K30 ($0.03) per litre of fuel in the January 1995 budget and again to K40 ($0.04)per litre in the January 1996 budget. Admittedly this fund continues to contribute immensely to the improvement of roads in Zambia. Only recently, the Chairman of the National Roads Board, Mr Raymond Jhala, told the Zambian press that, at the current levy of K40 ($0.04 has since depreciated to $0.03) per litre, it would take 1000 years to rehabilitate all of Zambia's roads (The Post, 25/7/96). The Roads department estimates that Zambia needs on average about K65bn annually for effective national roads maintenance programme, and yet the fuel levy only raises K15bn annually (National Roads Board, 1996d).

[8] Zambia's political history is divided into three Republic eras, the First Republic began with the birth of Zambia as an Independent state from Britain in 1964 based on multi party politics, the Second Republic starts from 1971 when Zambia abolished multi party politics for the One-Party political system, and finally the Third Republic is what ushered in Multi-Party politics once again in 1991.

Plate 5.2 A "once upon a time" tarred road in a high cost area of Kitwe.

What is more worrying are reports that the Ministry of Finance is deviating some of the money from the fuel levy for other recurrent expenses (Profit, July 1996, p.7). If this trend is to halted and reversed it will be necessary to make the National Roads Board completely autonomous, with separate accounts from those of the Ministry of Finance. It is also very important that the Government quickly introduces the toll gates so that foreign truckers who buy fuel in their home countries also contribute to the road maintenance scheme.

Despite, the pitfalls above, table 5.3 shows that tangible results in form of road construction demand have been recorded as a result of the introduction of this fuel levy. Apart from the obvious improvements to the road network, other economic knock-on effects were recorded in the construction industry. Records from the National Roads Board further show that a total of K5,926.58m ($5.926m) had been disbursed to the 61 local councils as at January 1996. This disbursement of fuel levy funds enabled most municipal and rural councils to engage local roads construction companies in this road rehabilitation exercise. However, the three cities of Kitwe (K500m [$0.5m]), Ndola (K120m [$0.12m]) and Lusaka (K561.1m [$0.561m]) under study all opted to engage mostly foreign construction companies for the same exercise. When asked why they opted for foreign based companies to rehabilitate their roads, they all had the same answer which was that, in the past, they had engaged local companies, only to be disappointed with the

workmanship once the rains started, but this is not the case with the workmanship of foreign based companies. According to one City Engineer who refused to be identified, "although the tender price for these foreign companies tended to be higher than local ones, in the long run it was a price worth paying, as it reduces future maintenance cost."

Table 5.3 Cash flow and disbursement by the National Roads Board during field survey (between Sept. 1995 and Jan. 1996) in Km

	September	October	November	December	January	Total
a. Receipts						
Fuel Levy	900	975	900	975	975	4,725
b. Payments						
Councils	1,780	1,600	2,757	2,600	1,200	9,937
PREs	450	750	543	750	000	2,493
Consultancy	50	85	100	205	000	440
Difference (a - b)	**-1,300**	**-1,460**	**-2,500**	**-2,580**	**-225**	**-5,212**

Pr v ncial Roads Engineers

Source: Mashamba 1996, survey data obtained from the National Roads Board, (March 1996d)

Plate 5.3 Part of the Kitwe-Chingola road under rehabilitation by Phoenix Contractors

In the more remote municipal councils (especially those off the line of rail), local road construction companies have continued to render a valuable service, mainly because foreign based construction companies tend to big and capital intensive, thus making them even more expensive and uneconomic for small rural contracts. This situation, consequently, makes rural road contracts more attractive to local roads companies in Zambia, and gives them an opportunity to perfect their workmanship in the trade, before tendering for much bigger and more complex contracts in the urban areas/cities of Zambia, and possibly within the Sub-region. Though not by design, we can thus say that rural roads projects in Zambia are indeed labour intensive and have helped in creating local employment, by effectively fighting off capital intensive and foreign based construction companies in the remote areas of Zambia.

5.8.2 Donor funded construction programmes

One remarkable and positive result of liberalising the Zambian economy in line with the structural adjustment programme of the World Bank and the IMF has been the net increase in the inflow of donor funds to Zambia. Prior to October 1991, the Western donor community had shunned Zambia because of the previous government's rejection of the structural adjustment programme as prescribed by the World Bank and the IMF, in preference for its own programme of "development from our own resources", which ultimately led Zambia and the International Financial Institutions to part company 1987. The situation was made even worse in September 1991 just before the change of governments, when Zambia failed to settle a US $20.8 million debt to the World Bank, and the World Bank retaliated by suspending the disbursement of funds totalling US $78 million meant for various developmental projects in Zambia. However, with the change of Governments in October 1991, and a new commitment to implement the structural adjustment programme by the new MMD Government, Western governments were quick to fund projects and programmes in Zambia. Within the first year of the new Government, foreign grants increased by 215.5% from their 1990 levels. Some Western governments like Sweden, Finland and Italy even went further to cancel all of Zambia's debts, whilst the British government undertook to cancel 60% of Zambia's debt on condition that she followed and implemented the structural adjustment programme (Zambia, Republic of, 1992, pp. 18-32).

The sectors that greatly benefited from this influx of donor funding are Water from the German Government, Roads from the American and Japanese governments, Maternity and Urban clinics programmes by the Irish government, public health by the British government, and tertiary education from the Japanese governments. All these projects and programmes called for the construction and rehabilitation of new and existing infrastructure, which should have gone far in supporting the local construction market. Unfortunately, however, most donor funded projects

carry a component of foreign experts, contractors and imported materials, thus defeating the postulated principle of the multiplier effect in the macro-economy of Zambia. This can be seen in the donor-funded Livingstone to Chingola (885km) and the Lusaka to Chipata (567Km) road rehabilitation exercises where all contractors are foreign based, the urban water sector programme is being done by Germany experts, and so on. Some local Zambian firms currently do benefit one way or another from this arrangement, but the benefit is minimum compared to what it could be if Zambian firms were engaged on a large scale.

Given that these projects are funded from outside, there is little if anything that the Zambian government can do. It is no wonder donor-assisted projects are seen as "the giving with the left hand and taking away with the right" because, by engaging all these foreign experts, contractors and imported materials, the supposedly donated funds ultimately return to their countries of origin. Some would argue that some of these projects and programmes require expertise that is currently not found in Zambia, hence the engagement of these foreigners, but how we you explain the awarding of Chinese funded low cost housing in Ndola, to Chinese contractors? Surely there are hundreds of Zambian contractors who are able and willing to put up low cost houses in Zambia, using the much preferred labour intensive techniques (Mashamba, 1996).

With the current debt and financial position of Zambia, it is easy to understand the role of donor funded projects, although this form of assistance should not be relied on heavily. One only hopes that the dependence on this sort of funding should be gradually reduced with time, with private sector finance increasingly taking the role of the hitherto public sector financing. Unfortunately, events in the last five years show that Zambia is increasingly relying on donor funding for its capital expenditure. For example, in the 1996 budget, it was envisaged that of the planned K381.1bn for capital expenditure, K292.8bn or three quarters was to come from donor contributions (Price Waterhouse, 1996, p. 18). Given the above experiences with donor funded projects and programmes and the continued reliance on donor finance for capital programmes, we can predict that the construction industry in Zambia will remain prone to external shocks, especially with the relationship between Zambia and the donor community. Already, the Americans, British, Japanese and the Scandinavian countries have suspended their aid packages to Zambia, in protest at the undemocratic practises of the MMD government relating to Dr Kaunda's decision to stand for the 1996 presidential elections. Notwithstanding the suspension of donor funding to Zambia, there is also great need for the Zambian Government to convince the donors in one way or another to utilise Zambian expertise, contractors and materials or the multiplier effect will never filter through to the rest of the economy. Evidently, this demand will require that Zambian construction reaches international standards to satisfy the donors, but then

again how do they reach that standard if they are not given contracts with which they can later finance their modernisation process?

5.9.0 Summary

Much as the Zambian Government is trying to promote the productive sector, especially the construction industry, with measures embedded in both SAP and the enabling shelter strategy much remains to be done. In the short term, is would appear that the construction industry has not faired quite as is postulated in the two development strategies. However, it is equally important to note that some of the measures contained in both SAP and shelter enablement, that now appear to be inhibiting growth and productivity in the construction sector (and the national economy for that matter), are only meant to be negative in the short term. For instance, the liberalisation of interest rates, which resulted in increasing the cost of borrowing, is meant to stabilise in the medium and long terms, and indeed that would appear to have been achieved before the Government spoiled it with the Meridien bank fiasco.

The other major draw back continues to be the neglect in the broad measures of SAP and shelter enabling in incorporating the informal sector financial market in matters of national development, even when studies and practise show that this sector plays an important part in construction finance and household expenditure. The insistence on western types of security, continues to be a source of great concern in the construction market. On the other hand, it is also apparent that, whereas the Structural Adjustment Programme and its affiliated policy of the enabling shelter strategy have opened up opportunities in the construction investment sector, the Zambian construction industry has somewhat failed to take advantage of these opportunities.

Another striking feature of the Zambian construction market, more especially the public sector, is its reliance on donor funding even when past experience has shown that this tendency leaves the industry vulnerable to international politics, vis-à-vis Zambia's human rights and governance records with the international community. But as we have seen in Chapter Two, and countless other examples of countries being denied aid, good governance and community enablement are now the salient conditionalities for Third World (including Eastern bloc) countries to receiving development aid from the Western World.

6.0.0. CHAPTER SIX: RESULTANT LABOUR AND INCOME LEVELS (IN THE CONSTRUCTION INDUSTRY)

6.1.0 Introduction

In chapters four and five we looked at Governments' attempts at creating an enabling (construction business) environment, more especially at attempts at facilitating construction investment and finance, using measures contained in Neo-Liberal policies. We saw then that it is not enough simply to put in place legislation that encourages and supports private sector investment without ensuring that construction demand and the other means (factors) of production are equally catered for. Among these, labour stands out as one of the most important in increasing the levels of industrial productivity and, in so doing, alleviating poverty and increasing the average standard of living.

> Human resources...constitute the ultimate basis for the wealth of nations. Capital and natural resources are passive factors of production; human beings are the active agents who accumulate capital, exploit natural resources, build social, economic and political organisations, and carry forward national development. Clearly, a country which is unable to develop the skills and knowledge of its people and to utilise them effectively in the national economy will be unable to develop anything else (Fredrick H. Harbison: quoted in Todaro, 1994, pp. 363-364).

The role played by labour in national development is well appreciated in both SAP and the Enabling Shelter Strategy, as can be witnessed in the new labour and employment strategies contained in these two related policies, i.e., labour intensive production techniques and the Urban Management Programme. The key labour policy strategy in both SAP and shelter enablement have been the creation of more employment opportunities and increased labour productivity, through education and training, which are postulated to result in increased construction output and thus positive national development. The prognosis in the Structural Adjustment Programme and further elaborated in the Enabling Shelter Strategy is that increased investment in shelter and hence the construction industry have significant impact on national incomes and the creation of employment opportunities. However, it is important to note that, before this industrial restructuring in the construction industry can materialise, technological and managerial changes must also be effected. It is thus envisaged that, once these changes have been effected, the construction industry among other things should begin to substitute the bulk of imported materials with local products and also ensure that some of the locally produced materials are exported to earn the country foreign exchange. Materials are also expected to be made under labour intensive methods.

These rather high expectations placed on the construction industry are based on various country studies that demonstrate that the income multiplier effects for the industry are normally about 2 and above, with seven to fourteen additional jobs created for every $10,000 invested in the industry (Grimes, 1976, p. 32-34; McCuthchen, 1995; Tipple 1995). Given the very high levels of

unemployment and the poor housing delivery systems in most Third World countries, it is easy to understand, therefore, the keen interest in validating this sub-hypothesis and go on to reap its reward of creating more job opportunities in the economy. Underlying this policy of job creation is the assumption that it will help in alleviating the abject poverty and at the same time contribute to growing national economies in most Third World countries.

In analysing Neo-Liberalist labour policies, we should be aware of the moral, social and political issues involved. For example, whereas reducing the 134,000 strong public service (representing 27% of total formal employment) has the effect of saving the Government huge amounts of money and thus helping in balancing the budget, the immediate and resultant mass unemployment has the potential of igniting serious civil and political unrest in the country (Zambia, Republic of, 1996b, p. 3). A phenomenon we are all too familiar with in Zambia after similar attempts in the late 1980's ended in mass riots and the eventual down-fall of the UNIP government (Hamalengwa, 1992).

Notwithstanding the moral, social and political issues raised above, we shall in this chapter endeavour to assess and focus more on the net impact of the Structural Adjustment Programme and its affiliated policy of shelter enablement in creating employment and raising national income in the construction industry and the rest of the economy. We shall go further and look at other related Government labour objectives like gender balance and the development of a well trained and motivated labour force in the industry during the past five years of SAP and shelter enablement.

6.2.0 New labour reforms

As is to be expected, the implementation of the Structural Adjustment Programme and its affiliated policy of Shelter Enablement have had serious political and socio-economic effects on the Zambian labour market and the economy as a whole. The globalisation of the World economy has also meant labour changes and events in other countries, especially those in the Southern African Sub-region, have had effects on the Zambian labour market and ultimately labour policy. Globalisation of the national economies has meant that national labour markets have been integrated into one global labour market, where international competitiveness is the operative term. In this global labour market, high labour earnings in one country can easily drive out industries to other countries with relative low wages and salaries (all other factors remaining the same). Similarly, workers will also try to migrate to those countries which offer them the higher earnings and better working conditions. Already we are witnessing an exodus of skilled labour from the rest of the Southern African region to the "new" South Africa, where wages and working conditions are far better than elsewhere in the region. The weak infrastructure, low standards of

industrial skills and unstable political climates in the rest of Southern Africa make it hard for South African industries and those from the rest of the World to be attracted to these countries to benefit from their low wage rates.

In consideration of this global labour phenomenon and its own aims and objectives as contained in SAP and the Enabling Shelter Strategy, the Zambian government has put in place labour policies and practises that are meant to assist in the realisation of national development goals. Labour reforms in Zambia started in 1992, with the change of name and key labour objectives of the then Ministry of Labour and Social Services to the now Ministry of Labour and Social Security. The role of the Ministry of Labour and Social Security is now increasingly associated with increasing employment opportunities and productivity in the economy (particularly the construction industry in our case). The labour ministry is also charged with the responsibility of ensuring that workers in the country have some form of social security and also to give some retraining to those retrenched. In an effort to increase industrial productivity in the country, the government also added a new department at the new ministry: the Productivity Development Department to the already existing Factories Department and Occupational Health and Safety Departments among others.

The prime objective in the new government labour policies was to give workers some form of social security, minimum workers rights and at the same time increase industry production through industrial harmony, better education and training. In this regard the Zambian government introduced a new National Pension Scheme under the Industrial Relations Act (Statutory instrument No. 171 of 1995) which is basic and compulsory to all (formal) workers, covering early retirement, physical and mental incapacity and funeral grants benefits. The Government has, however, been reluctant to set a minimum wage for all workers in the country for fear of more job losses, despite the party manifesto pledges of the ruling MMD.

Unfortunately, however, these new labour policies tend to benefit mostly formal sector workers, whilst informal sector workers continue to work in hazardous and insecure environment for less pay. It is fair to say that the none implementation of these policies and measures in the informal sector is not deliberate on the part of the government, it is almost impossible to effectively monitor and implement such polices in this sector (Hansenne, 1991). The situation is made worse by the fact that the informal sector is usually mobile and, therefore, difficult to monitor. Despite the state intervention in the labour market, the Zambian government believes in leaving day to day labour matters to employers and employees. In this connection, therefore, the latest Government labour policy has been in sharp contrast with previous socialist labour policies of the UNIP government or Keynesian labour policies for that matter, that advocated Government

intervention in the labour market in various forms like the adjustment of taxes and interest rates (World Bank, 1995, p. 5).

Given the position of Government to withdraw from past interventionist strategies in the labour market, the attainment of industry harmony in the labour market is paramount if the employees and employers can be left to themselves, to regulate labour price levels and stabilise the labour market. To the workers, industrial harmony entails having good working conditions and environment, a living wage/salary, gender balance and sensitivity, a motivated labour force and some form of job security. While on the part of the employer it entails having a well trained and motivated work force with the minimum of work stoppages, resulting in the company/industry attaining maximum production levels possible and corresponding profit margins. To this end, the Zambian government has ratified the International Labour Organisation conventions No. 87 which gives workers the right to organise and form trade Unions or workers associations and convention No. 100 which guarantees equal remuneration for all workers with the same qualifications, regardless of race or gender (World Bank, 1995, p. 152). However, although Zambia has also signed convention No. 138 which is against the employment of children, there are currently about 3.0 million children working in various sectors of the economy (Ihonvebere, 1996, p. 195). It is now a common sight to see children working with or without their parents on most stone crushing, blocking making or welding sites in the informal sector.

The Zambian government also created a new "vendors desk" at state House in late 1996 under the direction of the State House deputy Minister, to look at matters involving street vendors and the informal sector. Unfortunately, the role and duties of the "vendors desk" have not been clearly spelt out, nor is there a budget for this so called "vendors desk". We believe that if the informal sector is to be fully integrated into the Zambian economy, the sector needs to be looked after by the Ministry of Labour and Social Security just like the formal sector, with a ministerial budget. Street vendors and others in the informal sector, nevertheless, organised themselves into an association called the Vendors and Self-Help Association of Zambia (VSHA). In recognising the increasing role and size of the informal sector labour market, the Zambia Congress of Trade Unions (ZCTU) has also amended its constitution with a view to incorporating informal sector workers (Zambia Daily Mail, 19th June 1996). It is difficult to envisage how many workers in the informal sector will be able to form trade unions and join the ZCTU, considering that most workers in this sector tend to be family families or children (see chapter one). Collective bargaining is also more likely to scare away many informal sector employers in allowing trade unions at their work places, least they lose their competitive edge (Hansenne, 1991).

6.2.1 The changing labour environment in the Construction industry

The Government's human resources development policy for the rest of the construction industry is guided by the following aims and objectives: as contained in the National Policy on the Construction Industry:

(a) Improve national educational and training systems for the construction industry;
(b) utilise local technical experts and contractors, as a first option, on all Government construction projects;
(c) create mechanisms for facilitating the participation of national professionals on major construction projects undertaken for Government by foreign contractors;
(d) develop a cadre of national professionals who will be competent to carry out relevant research and development work for the construction industry;
(e) facilitate capacity building of national professional researchers by creating or supporting the infrastructure used for research and development;
(f) retain technically qualified personnel in the Ministry responsible for construction by providing improved conditions of service; and;
(g) strengthen local government administration for the purposes of enforcing and monitoring of construction standards and maintenance of civic infrastructure under their respective areas of jurisdiction.

The human resources policy document on the construction industry goes on to propose that all relevant curricula pertaining to the education and training of all levels of personnel in the construction industry should be reviewed in the light of modern day requirements of the Zambian construction industry. It further emphasises the training of small and medium sized contractors, consultants and manufacturers and reaffirms Government support for construction research and institutions in the country. The document does not, however, specify which institution/s are to carry out these proposed changes, nor who is to finance them, let alone co-ordinate the programme. Given recent Government intentions to involve the private sector in staff training and reduce its contribution, it is important that such details are worked out well in advance. There is also a need for dividing the programme into short, medium and long term targets for easy monitoring and evaluation. Unless these details are resolved sooner or later, the whole programme risks failing even before it is implemented.

Unfortunately, the postulated benefits above, have yet to be seen in the construction industry or in the rest of the economy. Employment levels and average national incomes continue to fall despite the five years that the country has had to apply these labour strategies, as contained in the Structural Adjustment and Enabling Shelter Strategy. It is important to take note, however, that the downward trend both in employment levels and incomes started way back in the 1970s with the advent of the global fuel crisis coupled with the fall in copper prices at the London Metal Exchange (See also figures 3.5 and 6.1).

After experiencing an employment boom immediately after independence, when overall employment figures rose from 248 000 in 1964 to 366 000 in 1971, representing a 47.3% increase, formal employment figures were roughly stagnant for some time until the mid 1970's, when Zambia began to register falling employment levels and incomes. Admittedly, therefore, the fall in real employment figures started long before the Structural Adjustment Programme and the Enabling Shelter Strategy were implemented, although it should be said that they exacerbated the process. Measures in SAP and shelter enablement to reduce the public service, privatise the large scale public companies, and liquidate ailing public companies and institutions have only added to the growing unemployment figures. Government's own figures for workers declared redundant have been very modest. For instance, they show that in 1994 a total of 6,528 workers were declared redundant and in the following year the number increased modestly to 6,905 (Zambia, Republic of, 1996, pp. 33-34).

Figures from the Zambian business community, however, reveal significant higher numbers of workers affected, for example their latest figures show that a total of 75,000 workers have lost their jobs in the last five years, an average of 15,000 jobs lost per year (Financial Mail, 8th. October, 1996). Studies in other parts of the World show similar patterns, that structural adjustment policies are associated with declines in real income, loss of employment opportunities and the deterioration of working conditions (United Nations, 1995, p. 8). The situation is no different in the construction industry, where measures by the local and central governments to reduce on public sector spending, staffing levels, and stop deficit budgeting for capital projects have all resulted in reduced national construction demand and ultimately in the number of workers in the industry. For instance, data from the Central Statistics Office show that formal construction labour was almost halved (44%) between 1991 and 1994, when the overall labour reduction in the whole economy was only 9% (see figure 6.1).

Fig. 6.1 Formal employment and construction labour force between 1990 and 1994

NB: For construction employment figures between 1964 and 1991 please see figure 3.5 in chapter 3

Source: Employment trends, Central statistics Office 1994, p.17

Arguably, the Zambian economy has witnessed an overall rise in the informal labour market, but since no comprehensive data exists on the informal market, it is difficult to argue with certainty that it is indeed absorbing the unemployed and those retrenched from the formal market. Our research study, however, will show that amidst the reduction in formal construction labour of 44% between 1991 and 1996, the informal sector labour force witnessed an increase of 80% during the same period (see table 6.3).

Clearly the continuous decline in formal construction labour in the country for the past 20 years is a manifestation of the reduced investment in the industry (see also figure 3.5 in chapter 3). Going by the high multiplier effects and number of jobs that are created for every $10,000 spent on construction, mentioned above, we can conclude that the Zambian economy has indeed lost out on a golden opportunity of creating mass employment through increased investments in the construction industry.

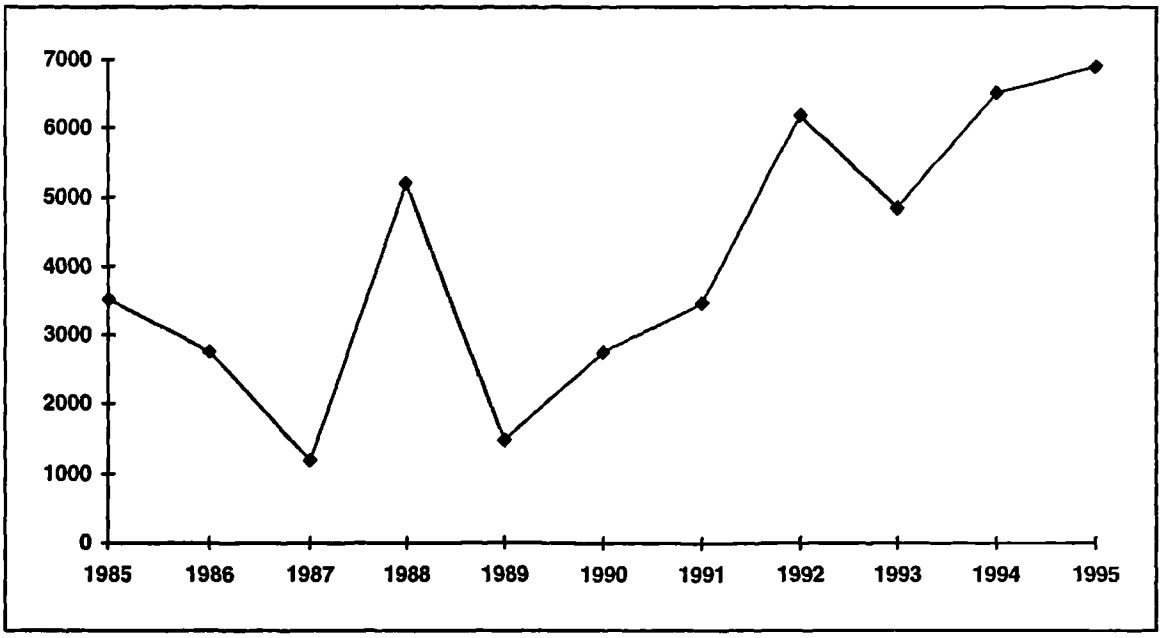
Evidently, the construction industry has had its share of the radical labour reform programme under the Structural Adjustment Programme, as revealed by Government own statistics and our field data. For instance, whereas the Zambian construction industry was the second largest employer in 1971, with over 70,100 employees representing 18% of total formal labour market, the number has since been drastically cut to only about 18,500 workers in 1994, representing only 3.7% of total formal sector employment (See also figure 6.1). The dismantling of the giant parastatal construction companies, which were in the main capital intensive, and the subsequent

emergence of private and small scale firms which are in the main labour intensive, have failed to arrest the situation in a shrinking formal construction industry.

In all fairness, whilst the formal construction labour market has been reducing, the informal labour market has increasingly taken over some of the roles and activities of the much reduced formal construction market. For example, in Kitwe the two major construction manufacturing companies (and parastatals) lost a total of 365 workers in the last years; Zambia Ceramics Limited (306) and Zambia Steel and Building (59), on the other hand, small scale and informal manufacturing firms were on average doubling their small work force. For example, Musonda building blocks in Musonda compound increased its work force from 3 to 6 workers, and similarly Chimwemwe welding at Chimwemwe main market also increased its work force from only one worker to 3 workers during the same period. We encountered many other countless but similar examples in the small scale and informal construction sectors. Whereas, the Zambian Government has been encouraging the growth of the informal construction market, its failure to devise a mechanism of collecting personal and company taxes from this growing sector has meant that the postulated gains in Government revenue have not materialised. This has also meant that the tax burden for workers and companies that have remained in the formal sector continues to grow whilst those in the informal sector continue to pay nothing to government.

Ideally this transformation of the labour structure does not in itself present any serious problems, as long as the informal sector is able to produce the same goods and services as the formal sector and the national economy grows. Otherwise, the failure of the informal sector to adequately service the industry as the formal sector shrinks would led to increased construction imports or shortages in the country. Government's efforts are now more directed at encouraging private sector initiative in creating more job opportunities than taxing the informal sector which is creating jobs. This is particularly true in Zambia, where the high levels of unemployment and its offshoots of crime, poverty, malnutrition and political instability, have reached a crisis point.. With recent studies by the World Bank (1994, p. 141) showing that about 40% of urban dwellers in Zambia are living below the poverty line, due mainly to high unemployment levels, the last thing Government wants to do is to discourage the informal sector job market with a new tax regime.

Fig. 6.2 Total registered redundancies between 1985 and 1995



Source: Central Statistics Office 1994 and Economic Report 1996

6.2.2 Labour Fluctuations in the three cities

Whereas is it quite clear from the data that average employment levels in the Zambian construction industry are falling, it is interesting, to note that the trend is not uniform in all the three cities. For instance, we note from Table 6.1 that the greatest labour reductions of 43% workers were recorded in Lusaka: the capital and commercial city, followed by Ndola the industrial city with 23% and, lastly, Kitwe the main mining city which recorded only 15% reduction of workers in during the period 1991 and 1996.

The finding that the least number of redundancies was recorded in Kitwe comes as a total surprise, considering the collapse of the copper mining industry on which the construction industry in Kitwe is so heavily dependent. Our surprise is further compounded by the fact the delays in privatising the copper mining industry also meant the suspension of major capital projects in the area pending the final sale of the industry. Under these circumstances, we expected the greatest construction labour reductions to be found in Kitwe. There can only be two possible explanations for this turn of events, one of which is that the non-traditional construction market in Kitwe has steadily emerged and replaced the dominance of the copper mining industry as a customer for construction. If we consider from Chapter Three that Kitwe City Council has been leading in the sale of council housing to its sitting tenants, we begin to see why is should be so: the sale of public houses has led to the newly house owners making improvements, alterations and extensions to their new owned houses and thus stimulating construction activities in the City.

This is clearly evident in the number of new security fences, built in block work in those areas where the council has sold its houses.

Table 6.1 Labour fluctuations in the last five (5) years-by location and sector

	Kitwe	Ndola	Lusaka	Totals
Small scale firms				
Workers 5 Yr. ago	256	274	444	974
Workers now	295	196	398	889
Fluctuations	**+39**	**-78**	**-46**	**-85**
Fluctuations in %	**+15%**	**-28%**	**-10%**	**-9%**
Public Companies				
Workers 5 Yr. ago	2118	0	0	2118
Workers now	463	0	0	463
Fluctuations	**-1655**	**0**	**0**	**-1655**
Fluctuations in %	**-78%**	**0**	**0**	**-78%**
Private Companies				
Workers 5 Yr. ago	1276	432	5456	7164
Workers now	2030	297	1492	3818
Fluctuations	**+754**	**-135**	**-3965**	**-3346**
Fluctuations in %	**+59%**	**-31%**	**-73%**	**-47%**
Government				
Workers 5 Yr. ago	18	1481	1026	2525
Workers now	317	1184	2066	3567
Fluctuations	**+299**	**-297**	**+1040**	**+1042**
Fluctuations in %	**+1661%**	**-20%**	**+101%**	**+42%**
Total fluctuations in %	**-15%**	**-23%**	**-43%**	**-32%**

Source: Mashamba 1995/6 survey data

The other possible explanation could be that, since both Lusaka and Ndola as provincial capitals have a higher number of public sector companies and government departments than Kitwe, the shedding of "excess" public sector labour prescribed under SAP has seen more workers lose their jobs in these two cities. This, however, has not been the case as we shall see in the next section. On the contrary, the public sector, especially the local and central Governments, have been

increasing their manpower levels in the past five years, thus giving more credence to our earlier explanation.

6.2.3 Labour fluctuations by size of company

Having looked at the labour fluctuations in the Zambian construction industry by location (City), let us now assess them by the size of the company, i.e. small scale and private companies, which tend to be small in size, and the large public sector companies and government departments. In doing this, we have in mind the aims and objectives of the Structural Adjustment Programme and the Enabling Strategy of scaling down the operations of the large public construction companies and promoting the emergence of the small and private construction companies. In this regard, Government plans are being fulfilled in that our data show that the small scale construction sector registered the lowest reduction in labour levels, compared to the medium and large sized public sector institutions. The city of Kitwe actually witnessed a 15% increase in employment levels for the small scale construction sector (see Table 6.1 above). We are mindful of the work of Briscoe (1993, p.283) in which he has suggested that large scale construction companies are best able to specialise and thus are more likely to have higher productivity levels than small scale companies. But, given Zambia's unemployment situation, the Government is interested in creating more job opportunities in the economy and is, therefore, prepared to forgo some national benefits of economies of scale in having large sized companies.

Our study further revealed that there was a combined 9% total loss of workers in the small scale sector, 78% for the Public sector and 47% for the private sector. The central and local Government departments, contrary to SAP and the enabling shelter strategy, registered a 41% increase in the number of workers. Looking at the high labour reduction figures for the Public sector companies, we can say that Structural Adjustment policies have successfully been implemented. It is however, unlikely that savings have been made yet, considering the huge bill for redundancy packages that have to be made, although it is quite clear that savings will be made in the long-run.

Asked as to why Government was contravening its own policy of trimming the civil service by actually employing more workers, the Chief Engineer at the Buildings Department in Lusaka explained that the Government was actually reducing labour levels in the non-technical scales, but still had to fill-up the vacant technical positions. He went on to explain further that, whilst every effort was being made to reduce manpower levels at clerical levels which were obviously over-staffed, the department was still very under-staffed at professional levels, i.e., Architects, Electrical, Civil, Road and Electrical Engineers, Quantity Surveyors and Planners.

The employment of more professionals at the Ministry of Works and Supply has also meant that the Government is now in a better position to cope with most public construction programmes and projects. This has meant that fewer consultancy jobs are now been given to the private sector. Given the high priority given to the small scale and private construction companies by the Government, as guided by both SAP and Shelter Enablement, the revelation that the Government is actually increasing its manpower levels at the professional scales has come as a serious blow to the small and private sector consultancy firms that were heavily dependent on Government and the public sector for business. This could explain the insistence by the Zambia Institute of Architects (ZIA) to Government that all architectural contracts in the country by commissioned only by their members! Should the Government give in to this demand, it will also mean loss of jobs for informal sector designers, who currently undertake many of the small scale building designs. The increase in the number of consultancy workers at the Government buildings department will no doubt have had some impact not only on the private consultancy sector, but also on the other sectors like contracting, particularly for professionals like Quantity Surveyors, Electrical and Civil Engineers would are capable of working for both consultancy and contracting firms.

6.2.4 Labour fluctuations by sector of the construction industry

Lastly, let us look at the labour fluctuations that have occurred in the construction industry by sector, i.e., construction, consultancy, manufacturing and supply. Of these four sectors, construction and manufacturing tend to be more labour intensive and have high multiplier effects to the rest of the economy than the two other sectors: consultancy and supply (see table 6.2). For this reason, site construction and manufacturing sectors have been given high priority in Zambia's labour plans of creating more employment opportunities and boosting the economy through their related forward and backward linkages (Moavenzadeh, 1987, pp. 73-109; Klaassen et al, 1987, pp. 35-59). The consultancy sector on the other hand, although it is not very highly computerised in Zambia, is nevertheless not very highly labour intensive and tends also to exclude the majority of low skilled workers. The sector dealing with the trading or supplying of construction materials also has lower multiplier effects in the economy, especially as most of the products they deal in are imported either from Zimbabwe and or South Africa.

Table 6.2 Labour fluctuations in the construction industry by sector

Sector of the Construction industry	Number of Workers 5 years ago	Current Number of Workers (now)	Labour Fluctuations over 5 years in %	Mean Number of workers per firm	Median Number of workers per firm	Highest No. of Workers in one firm
Suppliers/Traders	401	334	-17%	11.13	5.0	215
Consultancy	1,215	2,425	+100%	63.81	6.5	1,000*
Manufacturers	660	567	-14%	23.62	6.5	163
Contractors	10,505	5,411	-48%	98.38	14.0	1,500

* This high number of consultants was recorded from the Government's own Buildings Department, which employs all the central Governments construction consultants in the country. the high number of workers at the building department has thus pushed up the average for this sector.

Source: Mashamba 1995/6 survey data

6.2.5 Formal and Informal sector labour fluctuations

In the previous sections we have discussed labour fluctuations in the whole Zambian construction industry without regard to whether the construction firm was in the formal or informal sector which does not give a very clear picture of the labour situation in the industry. For example, whereas it is true that the overall Zambian construction labour market has fallen in the last five years under discussion, the situation is very different when the labour fluctuations are analysed either as informal and informal sectors. Table 6.3 below shows that whereas the formal labour market reduced by 44% between 1991 and 1996, the informal construction labour market increased by 80% during the same period. In absolute figures this means that a total of 5,066 workers lost or left their jobs in the formal labour market, whereas the informal construction sector witnessed an increase in of 1,022 workers. The difference between the two figures, thus gave the industry a net loss of 4,044 workers, representing a net loss of 32%.

Table 6.3 Labour fluctuations in the informal and formal sectors between 1991-1996

Sector	No. of Workers 5 years ago	Current No. of Workers	Difference 1991-1996	% difference 1991 and 1996
Formal	11,510	6,444	5,066	**-44%**
Informal	1,271	2,293	1,022	**+80%**
Total	**12,781**	**8,737**	**4,044**	**-32%**

Source: Mashamba 1995/6 survey data

6.3.0 Gender balance in the construction industry

Contemporary research in national development and shelter strategies has found that women, despite being a majority of most national populations, are generally under represented in national development issues (United Nations, 1995). Women on average receive less income than their male counter parts and they also make up the majority of those groups under the poverty datum line. These findings have, therefore, meant that contemporary development strategies including SAP and shelter enablement have had to pay particular attention to the gender issue. Studies by the United Nations (1995, p. 8) and many Non-Governmental Organisations (in the Copenhagen Alternative Declaration, 1995) have shown that women (and children) are specially vulnerable to the effects of SAP, thereby putting more pressure on SAP and its associated strategies to address this negative effect.

6.3.1 The Food for Work Programme and women participation in road construction

In response to these criticisms and others from the Neo-Marxist school (Mamdani, 1991), SAP has now incorporated the "social safety net" as part of its strategy to alleviate the particular problems faced by women and Children. In Ghana (Ghana, Government of, 1987) and Zambia, for example, the "Food for Work programme" is part of this social safety net programme, were women are given road and other construction jobs in exchange for a ration of food or clothing. Although this social safety net strategy has helped many families in Zambia, especially during the drought period of 1992/3, its long term sustainability is doubted. It has simply failed to convince its opponents on how the payment of food and clothing to poverty stricken families in exchange of their labour on construction sites and other work places can bring about the much talked about forward and backward linkages in the construction industry and improve the macro-economy. The argument that the social safety net programme is only an emergency aid measure is not credible any more because we have already seen this programme go on for five years now.

The food for work programme was first implemented by the new MMD government in 1992 when it abandoned the mealie meal (staple food) subsidy and converted the subsidy into a work programme intended for the poorer section of the Zambian society at a total cost of K1bn [$5.8m] (Zambia, Government of, 1992, p. 22). The programme is thus seen as a social safety net for helping the vulnerable groups i.e. women and children in light of increased mealie meal prices. The programme is managed through the Ministry of Community Development and Social Welfare with the assistance of local and international NGOs. In some rural areas, the government has also given some women hammer mills in exchange for their labour. The fact that the food and clothing involved is imported from the donor countries, only goes to confirm fears of its critics that this programme is meant to boost foreign industries and the economies of its donors. Having said that, we are all too aware of the improvements that have been made to most peri-urban roads

in Zambia under this programme, especially that the roads involved are in non councils areas which do not benefit from the national Roads Board nor from local council funding. For this reason, therefore, there is no fear of this programme depriving the informal and formal contractors of their work, as it is funded entirely under a different budget and programme. It is important also to note that the Food for Work Programme is only open to women from households whose income is below the government's own poverty threshold.

There is a need, however, to revisit this scheme with a view to making it a tool for breaking the poverty trap rather than perpetuating poverty. This would entail, for example, allowing women to form road construction co-operatives that would be able to undertake road repairs and new road construction projects, with all contracts transacted in the normal medium of exchange. In this way, women should be better able to save, expand their businesses, own land and property. The creation of a Government department for Women's affairs has not helped matters either, as the department seems more active in attending/organising international and national conferences and seminars for upper class women rather than caring for ordinary women in the streets.

6.3.2 Gender inequalities in construction employment opportunities

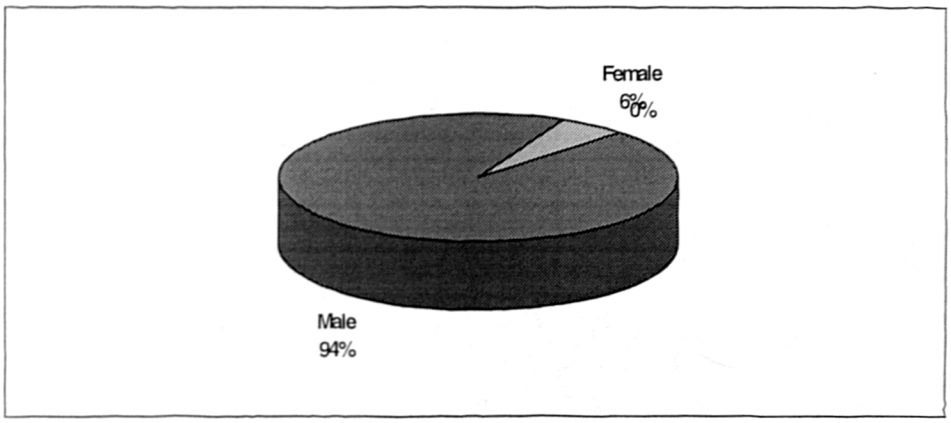
Although SAP has been accused of gender insensitivity (United Nations, 1995, p. 8), its affiliated policy of Enabling Shelter Strategy on the other hand does identify the special role to be played by women in shelter development (ILO[UNCHS], 1995, p.27-28). In recognition that huge gender imbalances still exist in the shelter market of most Third World countries, specific measures have been drawn up to enhance the women's' roles in shelter income-generating activities and decision making process. Global efforts contained in the decade for Women (1975-1985) and the 1995 Fourth World Conference on Women in Beijing have only added to calls for gender equality in the shelter market.

Gender balance in the Zambian construction market is not particularly different from the global picture above. For instance, recent research by the World Bank (1994) in Zambia found that the overall rate of unemployment amongst women is more than double that of men and that average earnings for women are way below those for men. The situation is no better in the construction industry, where women are under-represented in all the four sectors of the industry (see fig 6.1 below). The under-representation of women in the Zambian construction industry, especially in the informal building sector could be attributed to the diminishing roles of thatching and mud plastering that are traditional done by women in rural areas, but are less applied in the urban areas. There are hardly any thatched roofed and mud houses in urban informal settlements, rendering the art of thatching and mud plastering almost irrelevant in the urban environment. This

of course is no excuse in excluding women in the construction industry, as their can be easily trained just like men to do other construction jobs to suit the urban environment.

> In traditional or old societies (Zambian)...the husband with the assistance of his friends is generally responsible for building the superstructure of a house, erection of the timber (basket frame) and thatching grass is provided by the women -wife and is assisted by her friends and or relatives who complete the house by " braiding and filling the wall construction with clay, clay floor and decoration ... Today, the wife and other members of the family and even including the husband is most cases do not understand how the house is produced (Chakwe, 1983, p. 51 and p. 145).

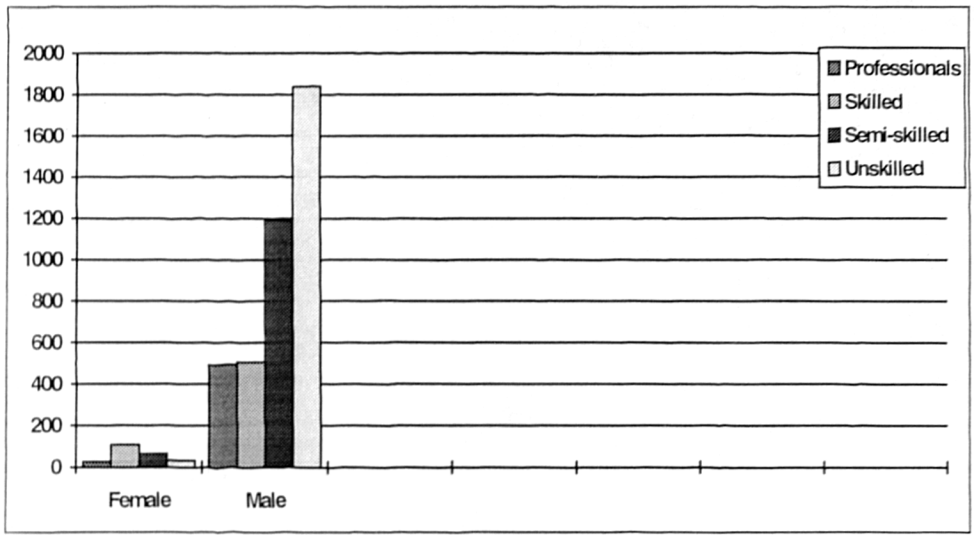
Fig. 6.3 Distribution of Workers in the Construction industry by Gender



Source: Mashamba 1995/6 survey data

Fig. 6.3 above reveals disturbing and wide-spread gender imbalances in the Zambian construction industry in that 17 out of every 18 (or 94%) of Zambian construction workers are males and yet the total female population in Zambia is well over 51%. Given, however, the physical nature of the most work on construction sites, it is understandable that there should be a predominant percentage of males on the physical side on construction sites. But the equally low (female) percentage figure in the office or trading side of the construction market is not reasonable (see figure 6.4 and table 6.4 below). The above imbalance, therefore, calls for urgent attention from the Government in uplifting women's participation in national development as outlined in the enabling shelter strategy and the Fourth World Conference on Women of 1995 in Beijing. It is important, however, to note that research carried out to assess poverty in Zambia did not find female headed households to be any worse off than male headed households in the urban areas, although the picture was somewhat different in some rural areas (World Bank, 1994).

Fig. 6. 4 Distribution of Labour in the Construction Industry by Gender and status



Source: Mashamba 1995/6 survey data

Table 6.4 Distribution of construction labour by Gender and construction sector in %

	Traders		Consultants		Manufact.		Contractors		Totals	
Trade	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**
Professionals	10.0	90.0	4.8	95.2	13.9	86.1	3.6	96.4	5.4	94.6
Skilled	19.2	80.8	38.2	61.8	23.0	77.0	11.5	88.5	17.6	82.3
Semi-skilled	5.9	94.1	11.1	88.9	14.9	85.1	2.4	97.6	5.2	94.8
Unskilled	0.0	100.0	6.9	93.1	8.8	91.2	0.3	99.7	1.8	98.2
Totals	6.3	93.4	10.3	89.7	14.0	86.0	2.6	97.4	5.5	94.5

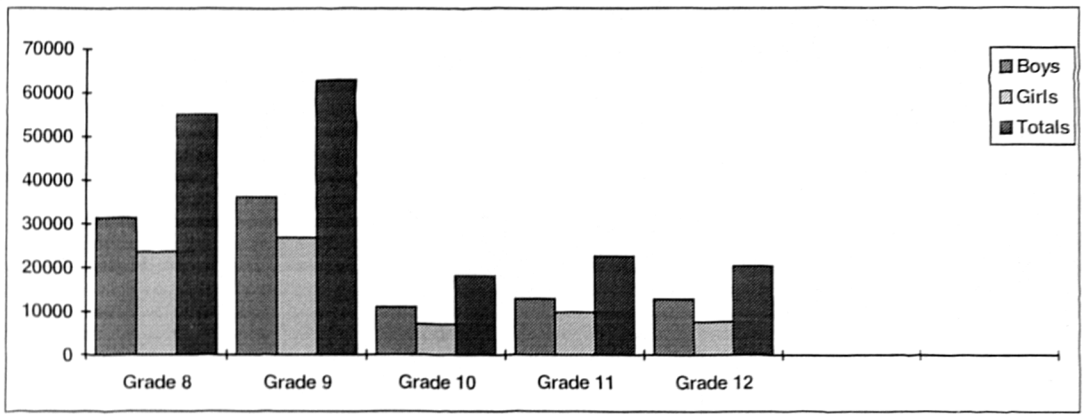
Source: Mashamba 1995/6 survey data

Looking at the low levels of professionals and skilled female labour in the construction industry, we would expect to find the root cause of this under representation to be in the low number of female students enrolled in the Zambian education system, as is the case in many other Third World countries (United Nations, 1995). Figure 6.5, however, clearly shows that this is not the case in Zambia, as the difference in numbers between boys and girls in primary and secondary schools is not as wide spread as that found in the construction industry.[1] For instance, at most the difference between the number of boys and girls enrolled in secondary schools is only 17%,

[1]The 1990 census report recorded a 76.4% adult literacy rate for males and 56.5% rate for females

whereas the gender difference in numbers at the professional levels in the industry is as high as 89% in favour of men.

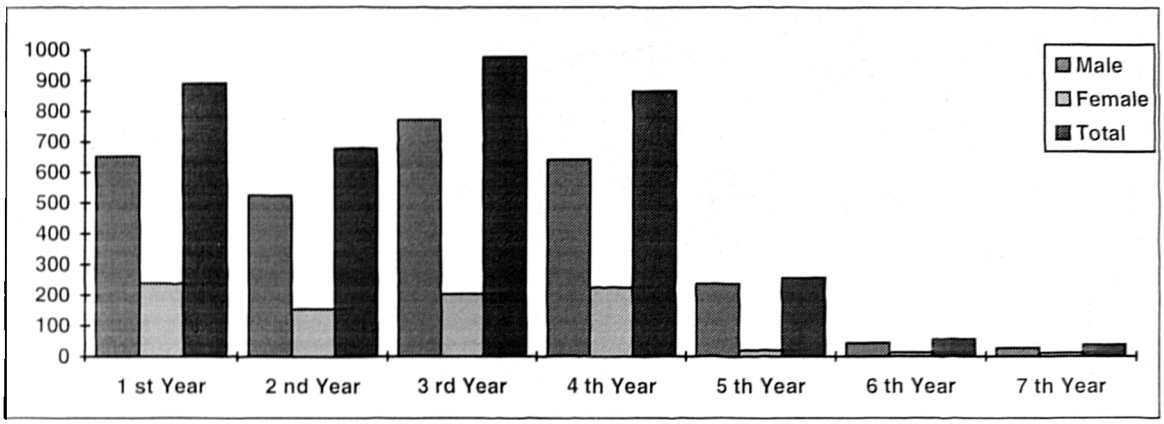
Fig. 6.5 Secondary School Enrolment by Gender and Grade (1995)



Source Economic Report 1995, p. 115

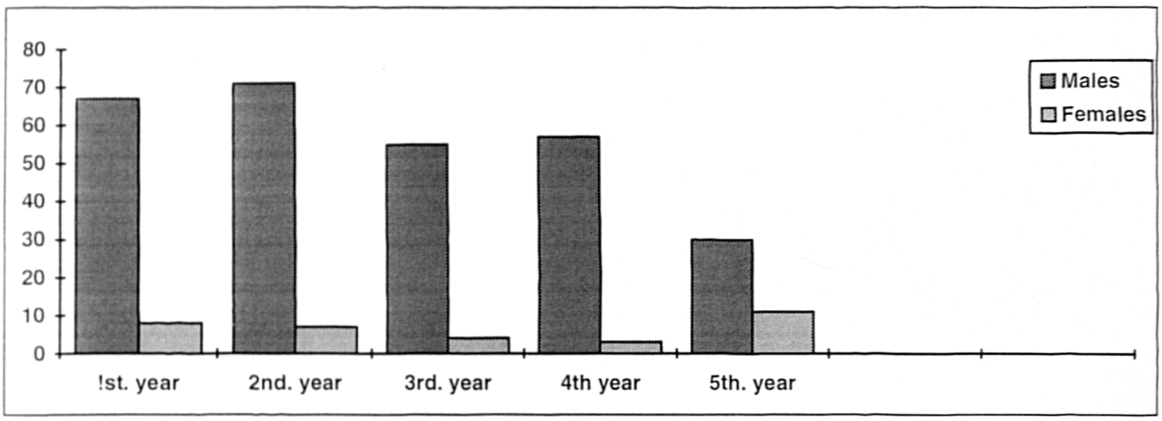
A further look at the enrolment figures at the University of Zambia (UNZA) and the Copperbelt University (CBU) by gender, reveals the root cause of the gender imbalance in professional grades of the Zambian construction industry and subsequently in the macro-economy. At the two Universities, the female population is at most only about 25% of the total student population, yet at secondary school level, the female student population is about 40-45% of the total population. This therefore, suggests that the real problem starts at University selection of students from the secondary schools, were the bias is more towards male students or that girls are not applying for technical subjects. Looking further at the enrolment figures for the schools of Engineering and Built Environment at the two Universities, it also becomes very clear that these two schools are dominated by male students, hence explaining the low numbers of females in the technical fields of the construction industry.

Fig. 6.6 Under-Graduate Enrolment at the Universities (1994/1995)



Source Economic Report 1995, p. 115

Fig. 6.7 Enrolment figures in the school of the Built Environment- Copperbelt University



Source: Mashamba 1995/6 survey data

6.3.3 Gender inequalities in earnings

Besides being under represented in the employment opportunities in the national economy, studies world wide have shown that women on average receive only a fraction of the wages/salaries paid to their male counterparts (United Nations, 1995; Commonwealth Secretariat, 89, p.39). Zambia is not exceptional. Studies by the World Bank (1994, p. 143) found that female monthly incomes tended to be a fraction of those of their male counterparts in waged and salaried employment, whereas in the self-employment sector the difference was even more, on average 2-3 times less than of males (see table 6.5). Although the study referred to above was conducted in 1991, just when SAP and the enabling shelter strategy were being been implemented, there is no evidence to suggest that the situation has improved since. If anything, the situation could even be worse now with some women having to receive food and clothing under the "social safety net" programme.

Table 6.5. Average monthly urban wages and profits (Kwacha) by gender

	Earnings per month		Earnings per month		Profit per month		Profit per month	
Occupation	Male		Female		Male		Female	
	Mean	Med.	Mean	Med.	Mean	Med.	Mean	Med.
Prof./Tech.	14,371	6,000	7,569	6,000	14,203	6,720	5,831	3,250
sales	10,900	4,500	10,715	3,750	27,285	9,600	13,815	5,000
Production/ Transport	6,592	4,000	4,901	4,000	17,829	7,500	5,428	3,010
Total Average	8,248	4,500	8,157	4,700	20,883	7,000	11,541	4,000

Source: World Bank, 1994, p. 143

6.4.0 Construction skills and training

Although it is acknowledged that the construction industry is a major employer of unskilled labour, it should nevertheless, be noted that the industry still needs a steady flow of skilled manpower to sustain an efficient and sustainable housing supply system (Tipple, 1993, p. 3). In this connection, therefore, education and training are a key prerequisite in sustaining a vibrant and sustainable construction industry, without which the private investors would be very wary of investing. Rapid improvements in information technology, construction materials and construction technology have also added to the demands for a well trained and disciplined labour force. These observations have not escaped the minds of the protagonist of the Neo-Liberal policies who also acknowledge that only a well trained labour force can successfully implement its polices and hence ensure sustainable national development (Harris, 1992, p. 79).

In recognition of this fact the World Bank, UNDP and Habitat developed the Urban Management Programme (UMP) which is an integral part of the Structural Adjustment Programme and was designed to deal with issues that have dogged most Third World countries in matters of planning and implementing urban development programmes. Given the old urban management styles that were practised in most Third World countries, especially in socialist-based economies like Zambia, it is easy to appreciate the need for appropriately trained staff equipped to deal with the new socio-economic environment brought about by SAP and the enabling shelter strategy. It should be made very clear from the outset that UMP is a programme specifically drawn up to cater for municipal and public service workers in the areas of research, planning, policy formulation, implementation and evaluation, yet ensuring effective, responsive, accountable and transparent local governance (Hildebrand and McAuslan, 1992, p. 93-103). The Urban

Management Programme further concentrates on the issues of urban land management, environment management, infrastructure and municipal finance in the running of local councils.

Despite the policy emphasis on training, accountability, and efficiency in local councils, coupled with a K5bn ($1m) funding for the Local Government Support Project (LOGOSP) by the British Government for the training and retraining of staff in local councils, the results have not been encouraging. For example, only recently a Parliamentary Committee on Local Administration found that Zambian local councils were riddled with "gross mismanagement, weak internal controls, missing accounting documents, fraud involving senior staff, and infringement of tender procedures in Zambian local councils. The same Parliamentary Committee found that Councils were in the habit of not preparing audited final accounts and cited the case of Lusaka City Council which has not prepared its accounts since 1982, despite having a director of finance, two chief accountants and numerous other accounts staff. The Auditor-General's report has equally been very critical of the operations of the councils and the Ministry of local Government and Housing. For example it was found that the Ministry and the Lusaka City Council had spent over K360m ($240,000) on the construction of the new Soweto market in Lusaka and yet no budget or clear records of the sources of funds existed for such a project (The Post, 27/9/96; Daily Mail, 8 /10/1996; Daily Mail, 10/10/96).

6.4.1 Skilled labour and formal training

In view of the ever rising population, coupled with reduced available resources, there is now an increasing need for adopting more efficient construction techniques in the Zambian construction industry. This will also call for the adaptation of appropriate organisational structures, and the employment of appropriate and efficiency manpower levels so as to maximise production from minimum resources. To be able to achieve these targets in this new industry transformation, the labour force must have the desired training and skills.

So far Zambia has faired quite well in this area, thanks mainly to the high priority that was given to free education from primary school to university level by the previous UNIP Government. Today Zambia with its two Universities has been successfully producing Civil and Structural Engineers, Quantity and Valuation Surveyors, Planners and Architects for the local market. The University of Zambia has been running the Engineering degree programmes for more than 25 years, while the Copperbelt University has run the other construction based courses for more than 10 years. Together these two institutions have produced more graduates than can be absorbed by the local construction industry so that most of their graduates now find work in the neighbouring countries of Zimbabwe, Botswana, Namibia and even South Africa. It is important to note this, in itself, does not mean that Zambia has solved it construction manpower problems, for example

recent reduction in university funding has raised questions over the calibre of our graduates. Field trips for students have been greatly reduced, research for staff is almost non-existent and the quality of the remaining teaching staff is increasingly coming under question. The best lecturers all seem to head South, where earnings are much higher and the abolition of expatriate conditions and pay has also meant very few high quality lecturers from outside can be attracted to Zambia[2]. Given that a primary school teacher at one of the schools run by the Zambia Consolidated Copper Mines (ZCCM) earns more than a University Lecturer, it is easy to see the source of frustration and low morale amongst lecturers at Government-run construction educational programmes in colleges and universities (Cornia, 1996, p.52).

Although the Structural Adjustment Programme and the policy of shelter enablement places great emphasis on education and training, experiences on the ground point to a completely different picture. This situation arises mainly because of the high priority given to balancing the Government budget. For example, whereas in 1990 the Zambia Government spent K50,000m ($216m) on Education and Training, in 1993 that amount had been cut to K30,000m ($130m), a reduction of 44% in just three years (World Bank, 1994, p. 95).[3] The reduction in resource allocation for education and training is not only a concern for the construction industry, but also with the overall Government policy on poverty alleviation. For instance, research by the World Bank in Zambia has found that educational status is highly correlated with poverty status, that is to say poor people tend to be those of the minimum of education (World Bank, 1994, pp. 30-69). This correlation between education and levels of development is further supported by studies that have been carried out in the Far Eastern Asia in assessing the ability of the so-called "Economic Tigers" of Asia in achieving rapid and sustainable long term economic growth. Here studies show a strong correlation between the high levels of education and research investment and their ability to achieve and sustain economic development (World Bank, 1993).

Although it should be noted that overall gross funding for education and training in Zambia has been greatly reduced in the last five years, it is interesting to note that university education budget has been increased[4] (World Bank, 1994, p.100). Inasmuch as we appreciate university education, surely this should not be done at the expense of primary and secondary school education (basic education), trades training schools and colleges. The result of this has seen some minimum improvements of facilities at the two universities, but the total collapse of trades training schools

[2]The take home pay for a starting University lecture in Zambia at current exchange rates is $266 per month, whereas in South Africa it is on average $800-1000.

[3]The figures were calculated at real 1993 Kwacha levels

[4]In real terms, however, even University funding has been greatly reduced. The Minister of Education further revealed in a television interview with the Zambia National Broadcasting Corporation, on Tuesday the 25th. of March 1997, that the two Universities were getting 44% of the total education budget (see also the national daily papers of the 26th March 1996).

like those at Lukashya in Kasama and Choma Trades College for the training of painters, carpenters, bricklayers and plumbers.

Not only does university education cost more per head than basic education, it also does not benefit most people at the grassroots: the very people that the strategies of Neo-Liberalism are trying to promote. It is no wonder that the Zambia Institute of Architects is complaining of poor workmanship at most building sites. As if that was not enough, the Government pays University students K90,000 ($90) per month and yet only pays graduates working in the various ministries a starting salary of K60,00 ($60) per month (See also World Bank, 1994, p. xiv)!. Such irrational decisions obviously go to highlight the politicisation of socio-economic decisions in Zambia.

The integration of the former Zambia Institute of Technology (ZIT) in Kitwe, which used to produce certificate and diploma graduates for the construction industry, into the new Copperbelt University in 1988 has also contributed to the low turnout of graduates in the middle technical scales of the construction industry. Today the Copperbelt university produces more architects than architectural draughtsmen and has meanwhile suspended the quantity surveying diploma course but yet still runs the degree course. In short, the trend at the Copperbelt University School of the Built Environment is to focus more on the degree courses and in the process neglect the certificate and diploma courses it inherited from ZIT. Surprisingly, we found this trend in the construction industry as well, where on average 2% of the companies sponsored their workers for university training and, 3% each for college and trades training (see table 6.6).

Considering the high expenses involved in university education and the working ratios between university graduates and college/ trades graduates in the work place, we expected to find more companies sponsoring trades training than for University training. The conventional norm in the rest of the World is for having 3-5 draughtsmen for every architect or quantity surveyor produced, and yet in Zambia we seem to have the ratios the other way round (see table 6.6). There is equally a greater need to improve the primary and secondary school's curriculum, so as to include more practical and vocational subjects like carpentry and bricklaying, if the bottom-up effects in shelter and the construction sectors are to be realised.

Table 6.6 Percentage of companies with workers at formal (construction) training institutions

Type of Company	University	College	Trades School	Other	None
Small scale Companies	2	2	1	14	81
Public Companies	0	25	0	25	50
Private Companies	3.5	3.5	7	18	68
Government Sector	0	0	9	82*	9
Totals	2	3	3	20	72

Bilateral training agreements through the Government, which included all levels of training: degrees, diplomas and certificates

Source: Mashamba 1995/6 survey data

The situation is made worse by the evidence that a large number of companies, 72% in all, have no formal training programmes for their workers. It is also interesting to note that the private and small scale construction companies which the Government is desperately trying to promote are the ones with the lowest rates of staff training scholarships (32% and 19% respectively). In view of reduced funding for education and training by Government, there is need for the private sector to organise itself and develop a training programme and research body for themselves. This programme could take the form of that in Botswana, where all construction companies are levied a training fee for use in the training of students and workers in the construction industry. Unless this is done, the industry risks lagging behind the rest of the region, thereby failing to compete with them and the rest of the World. The industry needs to prepare itself for all-out competition especially when all trade barriers are expected to be fully removed under the newly launched Common Market for Eastern and Southern African (COMESA).

6.4.1.1 Expatriate labour force and its effects

Unfortunately there is a growing view in Zambia that the advent of economic liberalism has resulted in an influx of expatriate workers in the construction industry at the expense of local expertise. The local unemployment crisis among the professionals in the industry is blamed on this "new phenomenon" whereby foreigners are said to be given jobs that can easily be done by locals (Mukalula, 1995, p. 4). Our findings, however, do not support that view point. On the contrary we found a growing tendency by construction companies to employ local expertise, especially by the small scale companies. Out of a total of 147 companies surveyed, we only found 10 (7%) companies that were employing a total of 18 expatriate workers. Even Minestone, one of

the three biggest construction companies in Zambia that had 78 expatriates in 1978 (Turner, 1995, p.1), now only employs four expatriates.

It is difficult to explain this xenophobia towards expatriates given the global economic order and the promotion of foreign investment in the Zambian construction industry. It seems quite naive to welcome foreign investment and yet exhibit xenophobia towards foreigners. Understandably, this xenophobia arises from the fact that other countries in the Sub-region, especially Zimbabwe and South Africa, have very tight trade barriers. But surely the right policy should be to get these other countries to open up their construction markets, especially as the free-trade agreement under COMESA has already been signed.

Another reason why we continue to see expatriates in some Zambian construction companies is that we have not yet managed to train and retain professionals in all fields of construction. This was clear from our survey which found that 7 (70%) out of the 10 firms that employed expatriate workers gave the reason of there being no qualified Zambians for the kind of work offered. For example, Zambia is still lacking indigenous professionals in the areas of geotechnical engineering, foundations, piling and roads engineering. Wade Adams the only piling and foundations company in Zambia only has one Zambian working there, and has at times to rely on its parent company in the UK to do some of its work in Zambia. Case in point is the Konkola Deep mining project which Wade Adams had done the preliminary survey work for the Zambia Consolidated Copper Mines, with the help of Wade Adams (UK). Nevertheless, Zambia should be careful not to repeat the mistakes of the 1960s and 70s when rapid Zambianisation was effected despite having only a handful of quality graduates and professionals. In the words of the Managing Director of Apollo Enterprises, "it takes a further 5-10 years of on-the-job training under appropriate supervision to produce a professional from a graduate straight from school." This is a fact we seem to ignore in Zambia not only in the construction industry, but in other industries as well.

6.4.2 Unskilled labour and informal training opportunities

The construction industry is generally characterised by its large proportion of semi and unskilled labour force. This is the characteristic that makes construction an attractive industry to absorb masses of unskilled and unemployed workers in the economy. There is, however, a pressing demand under the new economic order for improved efficiency, productivity, and profitability, that ultimately calls for some level of a well educated and trained labour force even among the lower scales of the construction workers (Habitat, 1996, p. 225; Tipple, 1994(a), pp. 9-11). The low level of education and training amongst most construction workers in third World countries has been cited as one of the key reasons why Third World countries have failed to utilise the new

research findings in small scale construction technologies and management skills that have been adopted world wide (Lisk, 1996). This has resulted in most Third World construction companies having to rely on "traditional and outdated production technologies, which are wasteful on raw materials and energy" (Habitat, 1996, p. 226).

The acquisition of new construction skills by construction workers, especially those with little formal education, need not, however, be confined to the formal trades schools and colleges. Experiences from a number of countries, including Zambia, have shown that informal training schemes can be equally as effective, if not more cost effective than the formal schools. The informal training centres with their low operational cost thus auger well with countries like Zambia, that are having to cut back on the education budget. The Zambian government, through the Ministry of Science, Technology and Vocation Training, has thus seized this opportunity to set up a number of what it calls "open air demonstration centres." These are centres in the urban areas where unemployed youths are trained in various trades like brick laying, carpentry and so on. Although these "open air demonstration centres" are currently targeted at unemployed youth in the urban centres, there is no reason why this scheme should not be extended to include retrenched and unemployed men and women throughout Zambia.

The National Housing Authority (NHA) with the assistance of UNCHS (Habitat) has also for a long time being training the unemployed in various construction skills at its demonstration centre in Lusaka's Bauleni compound. A number of construction training centres already exist in Zambia, many of which are run by various NGO's and the local councils through their housing departments. What is lacking is a co-ordinated national training scheme that would avoid duplicating scarce national resources. For example, whereas the NHA has being running experiments at the Bauleni Stabilised Soil Block demonstration centre for over 3 years, its activities and achievements are not well known. Consequently, similar efforts are being duplicated elsewhere in Zambia. The same can be said about countless other projects that have been undertaken by NGOs and the Small Industries Development Organisation (SIDO). One resource which the country lacks, therefore, is a national body to oversee, co-ordinate and disseminate information on construction training throughout Zambia.

There is a need also to encourage more construction companies to take-on fresh graduates from these training centres, rather than insist on employing workers with industrial experience; otherwise the benefits of education and training will not be felt. For instance, Table 6.7 shows that the private sector has a higher percentage of companies that insist on past industrial experience when employing new workers than the public sector. This situation arises because the private sector has too little financial and human resource to engage workers without industrial

experience and thus have to spend their time and other company resources on giving these new recruits the relevant industrial experience. To overcome this obstacle it might be necessary to give these small scale private companies some form of tax incentives to encourage them to employ some of these informally trained workers with little or no industrial experience.

Table 6.7 Percentage of Companies employing workers with/out practical experience

	Without Practical experience	With practical experience
Small scale Companies	61	39
Public Companies	100	0
Private Companies	70	30
Government sector	70	30
Totals	**65**	**35**

Source: Mashamba 1995/6 survey data

Given the need for a well trained labour force and the high cost involved in training workers in formal schools and centres, it is particularly interesting to note from table 6.8 the fact that public sector companies tend to marginalise informal training, with none of the public sector companies having any form of internal and informal training programme for their workers. It is equally disappointing to note that 67% of small scale companies have no informal and internal training programmes for their unskilled workers.

Table 6.8 Companies with an informal (internal) training programme in %

Type of Firm	With a Training Programme	Without a Training Programme
Small scale firms	33	67
Public Companies	0	100
Private Companies	36	64
Government Sector	73	27
Totals	**35**	**65**

Source: Mashamba 1995/6 survey data

6.4.3 Small scale and labour- intensive construction methods

It must be said that the success of the job creation exercise in the construction industry depends very much on the industry being able to employ more labour intensive construction techniques.

The enabling shelter strategy also favours the use of small scale private sector construction companies over public and large construction companies because of the need to do away with monopolistic tendencies and thence reduce prices through competitive tendering. It should, however, be noted that small scale companies are not always synonymous with labour-intensive techniques, although most small scale companies tend to be labour intensive for lack of capital to buy machinery. Labour-intensive construction policies aim at substituting human labour for machines in the construction process, with the hope of creating more employment opportunities in the construction industry. The transformation of either a company or industry from capital to labour-intensive inevitably entails changing the technology employed in the construction process in order to utilise more manual labour: unskilled and semi- skilled labour.

This process is clearly evident in previously socialist countries like Zambia, where the construction industry was dominated by large scale public sector companies that favoured capital intensive techniques. It is important to note, however, that the transformation from capital to labour-intensive construction methods, employing mainly unskilled and semi-skilled workers, does not in itself mean that construction standards are compromised. It should equally be made clear that labour intensive construction methods are not necessarily cheaper than capital intensive methods as this depends very much on whether the return from the amount of capital tied up in machinery is greater than the rate of interest charged on capital (City of Soweto, 1992, p. 4).

Apart from creating employment opportunities for a number of unskilled and semi-skilled workers, labour intensive construction techniques also save the country foreign exchange by avoiding imported machinery, spares, fuel and expatriate labour to run them. Although it is difficult to quantify these savings in monetary terms, it is quite clear that the liberalisation of the Zambian economy as contained under SAP and the enabling shelter strategy has helped in changing the dominance of the construction industry from one of large public companies to one of small private companies. In table 6.9, for example, we see that over 50% of surveyed companies are now made up of those consisting of 1-9 workers. The same table also shows that about 90% of construction companies are now small and medium sized and these tend to be private sector companies. This transformation should be taken as a major success considering that only 5 years ago Zambia's construction industry was dominantly by the large state and parastatal companies like Zecco and other private but very large scale companies like Minestone, Lewis, Apollo, Roan, Bancroft and J. Whyle construction companies.

Table 6.9 Size distribution of construction companies

Size of Work-force	No. of Firms	% of Total No. of Companies	Cumulative % Totals
1-4	42	28.6	28.6
5-9	41	27.9	56.5
10-14	20	13.6	70.1
15-19	10	6.8	76.9
20-49	18	12.2	89.1
50-99	6	4.1	93.2
100-199	3	2.0	95.2
200-499	2	1.4	96.6
500-999	0	0.0	96.6
1000+	5	3.4	100.0

Source: Mashamba 1995/6 survey data

Local councils have been found to be the largest employers of labour-intensive methods, albeit seasonally. Zambian urban local authorities tend to employ casual labour in the clearing of storm water drains, cutting of grass on the road-sides and on open spaces, and in patching up of potholes. The seasonal nature of these (cleaning exercises) means that councils find it more economical to employ causal labour than full-time workers or machinery. This makes economic sense, although it is feared that the seasonal employment of casual labour has the risk of attracting and engaging peri-urban and subsistence agriculture workers at a time when they are most needed in agricultural work. If indeed people are abandoning their agriculture to work on this scheme, agricultural production is suffering. The Trade Unions and the Neo-Marxist school will no doubt also argue that this scheme is exploiting casual workers because they are not entailed to the same fringe benefits as their full-time colleagues.

Plate 6.1. Clearing drainage and cutting grass in the Townships using Labour intensive methods: Kitwe City Council

Plate 6.2 Concrete Block making using Labour intensive techniques: Ndola

6.5.0 Income and Earnings

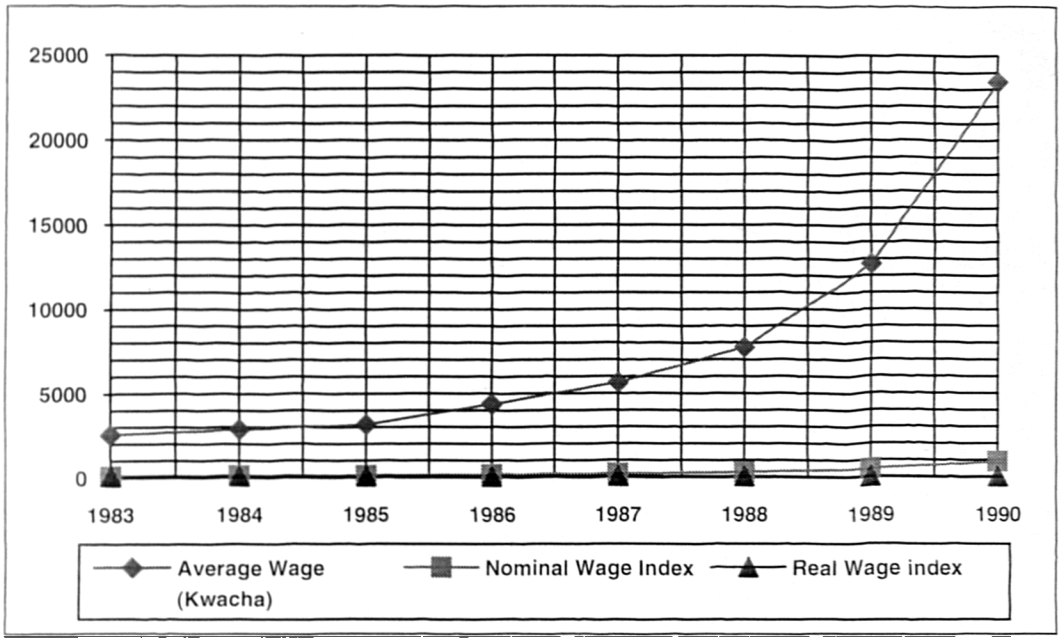
Average earnings in all sectors of the Zambian economy started falling back in the mid 1970's at the height of the oil crisis and have continued to fall since. The successive devaluation of the Kwacha in the early 1980s, coupled with the attempted foreign exchange auction system in the late 1980's only worsened the situation (see table 6.10). The continued fall of the Kwacha in the last five years in response to market forces under the Structural Adjustment Programme has worsened the situation to crisis point. In 1992 for instance, total average real earnings for Zambian workers were only about 21% of their 1975 values (see figure 6.8 and table 6.10). Excessive wage and salary increases, that were awarded to workers with the hope of offsetting inflationary pressures, only exacerbated the inflationary situation. For this reason the Structural Adjustment Programme has an in-built strategy of controlling wage-push inflation especially in the public sector, by freezing or controlling "excessive" wage and salary increases.

Various attempts by the Zambian Government, however, to control or even freeze public sector wages and salaries, have been met with stiff resistance from the Unions. The latest measures that were contained in the 1996 budget resulted in country wide strikes, which eventually forced Government to back down and start salary negotiations with the all public sector unions. Going by past experience, it was quite obvious that Government was never going to successfully implement the 1996 wage freeze budget proposals, given that Parliamentary and Presidential elections were scheduled for October of the same year. Past experience has shown that, in election years, political expedience take priority over all socio-economic matters in the country (Hamalengwa, 1992).

In table 6.10, we see that, despite the fall in national average real earnings, earnings in the construction industry have remained 9% above the national average value of 21% (1975=100). Despite this relatively favourable showing for construction sector earnings, the truth of the matter is that construction earnings are still very low and the fear is that this trend will only attract top quality personnel away to the richer countries to the South. The acute unemployment situation in the country and the emergence of the informal construction sector have contributed to the lowering of average earnings in the sector, as desperate job seekers are willing to accept wage rates below those recommended by their Union and the Government. The refusal by the Government to fix a minimum wage in the country is clearly a manifestation of its commitment to a free labour market which is regulated by demand and supply. The Government's lack of political will to face the electorate on the consequences of this on a free labour market is, nevertheless, a serious drawback that will continue to affect its economic and development programmes.

Clearly the Zambian downward earnings pattern is no different from the findings in other African countries undergoing Structural Adjustment as has been revealed in research by Ghai and Alcantara (1991). Their research found that the tendency for formal employment markets to decline and the informal markets to increase also leads to a reduction in earnings in the informal sector. Bangura and Beckman (1993, p. 77) have argued that this is how it should be, because African workers have on average been overpaid in the past, compared for example, to their Asian colleagues who have higher productivity. The salient feature in the Structural Adjustment Programme, therefore, is that wages and salaries should only be raised if and when productivity is increased, which should be self regulated by demand and supply forces in the labour market. But, as the Zambian case and that of Nigeria (Bangura and Beckman, 1993) have demonstrated, civil servants and public sector workers often resort to "obstructing" government day-to-day business to bring the Government to its knees.

Fig. 6.8 Average wages for unionised workers in all sectors



Source: Economic report 1991, p. 29

Table 6.10 Average Annual Real Earnings of Employees by Sector

Economic Sector	1965	1970	1975	1977	1979	1980	1986	1991	1992
Agriculture, Forestry and Fishing	90	139	100	111	118	119	136	48	22
Mining and Quarrying	110	126	100	71	63	62	36	34	22
Manufacturing	100	11	100	78	72	71	37	25	23
Construction	84	119	100	78	n/a	n/a	n/a	46	30
Transport and Communication	75	102	100	69	n/a	n/a	n/a	26	20
Services	99	103	100	76	73	69	40	26	20
Total	97	111	100	77	73	72	44	30	21

Source: World Bank 1994, p. 15

6.5.1 Foreign exchange component for wages and salaries

We will recall from sub-section 6.4.1.1 that one of the main reasons expatriate construction labour was viewed with scepticism was because of the alleged fear that the much needed foreign exchange would be lost through the payment of expatriate salaries. With the liberalisation of the foreign exchange market, however, it is no longer necessary to pay expatriate workers in hard foreign currency, as they are can easily buy their desired foreign currencies given the local Kwacha equivalent. The continuous depreciation of the Kwacha, nevertheless, means that expatriate workers are better advised to quote their salaries in a stable international currency, like the British Pound or the American Dollar and then settle for the local Kwacha equivalent. Otherwise, they stand to see their real earnings depreciate just like their Zambian counterparts. Whereas others welcome this development as a trend that will nevertheless promote Zambianisation, it means, however, that it has become increasingly difficult to attract qualified and able expatriate staff in those positions in which Zambia still lacks qualified local staff.

Table 6.11 Currency in which wages and salaries are paid: by construction sector and in % of total

	US Dollar/UK Pounds only	Zambian Kwacha only	Combination of Kwacha and US $ / UK £
Small scale Companies	0	98	2
Public Companies	0	100	0
Private Companies	0	82	18
Government Sector	0	100	0
Totals	**0**	**95**	**5**

Source: Mashamba 1995/6 survey data

Although it is quite clear from table 6.11 that Government and the Public sector remain major employers of expatriate staff, it is equally important to note that these public sector bodies do not necessarily pay them. This is because most of the expatriate workers concern come directly under the various multilateral and bilateral aid schemes, which entails their being paid directly by their aid agencies. In the private sector, however, we saw a tendency by the employers of these expatriates workers to break their worker's earnings into two components: (a.) Zambia Kwacha and (b.) one of the international currencies: i.e., Dollar/Pound. This practice is meant obviously to offset the erosion of earnings of workers by the runaway inflation currently prevailing in the country. Its only drawback, however, is that it ultimately increases company production costs due to Kwacha fluctuations against international currencies and could, therefore, cost the company its cost/price advantage in a highly competitive construction market.

It is also interesting to note that only 2% of the small scale construction companies were paying their expatriate (or local staff) in foreign currency, compared to 18% of medium and large sized private sector companies. This goes to validate the theory that private and small scale construction companies are more inclined to employ local staff than the other companies and sectors. That being the case, private and small scale construction companies should have higher multiplier effects than the rest, i.e., Government and public sector. It can, however, be argued that it does not really matter whether only a few percent of companies in the economy pay their workers in foreign currency, for as long as there is a liberalised foreign exchange market, foreign workers can still purchase foreign currency in the local economy and export it.

6.5.2 Factors determining the wages and salaries

There are a number of factors that construction companies take into account when determining the wages and salaries of their workers. Traditionally, the key factors in determining the

wage/salary levels for workers have been the construction skill and experience possessed by the workers, the productivity and profitability levels of the company and the wages/salaries agreements signed between the employer and the workers. In the past 5 years, however, we have seen increasing attempts by Government to change that culture and reduce the role of Trade Unions in pay negotiations. The marginalisation and salient efforts to scale down the powers of Trade Unions in the era of SAP, has been so overwhelming that some scholars have concluded that there is deliberate policy agenda under SAP to destroy Trade Unions (Bangura and Beckman, 1993). Certainly that would appear to be the position in Zambia, if we consider the break-up of the once very strong relations between the Zambia Congress of Trade Unions and the MMD prior to the MMD forming a government. For example, the current Republican President, the Ministers of Labour and Social Services and Home Affairs were all in the top four in the hierarchy of the Zambia Congress of Trade Unions prior to the 1991 elections and campaigned on a platform of Trade Unions related matters like minimum pay based on a living wage. Yet today the same Trade Union sponsored MMD Government has not implemented any of its promises to the workers.

Obviously, the Government realises that any attempt in fulfilling any of the above promises, despite the lost of confidence by its political backer the labour movement, would seriously undermine its economic restructuring programme. For instance, setting a minimum wage would increase production prices, forcing more companies to lose their production advantages and thus result in more unemployment. It will be interesting, however, to see the pay deals that will be conducted in privatised construction companies like Mulungushi construction in Kitwe, which was sold to a management and workers buy out scheme. For example, what will be the basis of wage/salary deals between management and workers and what measures will the workers take in case of a pay dispute? Should this scheme prove a success, then maybe the solution in dealing with the current nation-wide pay disputes lies in selling most of these public sector companies and departments to the workers and letting them manage their own affairs. This scheme would also solve Government's problem of finding redundancy packages in that the workers would be given shares in the company equivalent to their redundancy packages. The scheme is also likely to raise the productivity levels of these companies as no worker would want to see his/her work fold up, as the closure of the company would mean the loss of the workers' own life time savings.

Understandably, the other reason why Government is reluctant to implement the poverty datum line and it associated minimum wage is because of its financial inability to pay it own workers. The fact that 84% of total government expenditure is already being spent on personal emoluments makes the prospects of implementing the minimum wage in the near future even more remote than has been suggested (1995 Economic report, 1996, p. 37). The Structural Adjustment

Programme solution to this problem is for the Government to reduce the number of public sector workers and then give the remaining workers a "living wage." But with the Zambian Government failing to pay terminal benefits to retrenched workers in the public sector, the option of public sector retrenchment is no longer a viable one. All the more reason why the Zambian Government should now seriously consider the option of management and workers buy out schemes on a larger scale.

6.5.3 Trade Unionism, labour productivity and pay

In Zambia, the interests of workers in the building, construction and allied industry are looked after by the Zambia National Union of Construction Workers (ZNUCW) which, like any other Union, looks after the working environment, wage and salary rates and the general welfare of its members. The employers on the other hand have the Zambia Federation of Employers, although the contractors have their own specific organisation called the Association of Building and Civil Engineering Contractors, which among other things, negotiates with the ZNUCW on matters of pay and condition of service for construction workers. The strength of the ZNUCW has, however, been greatly eroded over the last few years by the great reductions in membership, arising mainly from redundancies, that it now commands very little influence in the industry. The mushrooming of the informal construction sector has not helped matters, as both workers and employers are not registered with either organisation.

Although there is now an increasing tendency, especially in the private sector, to base workers earnings on labour productivity and profitability levels of the company, Government departments and public sector companies still rely very much on standard wage/salary rates agreed with the unions. Table 6.12 shows for instance that, whereas there are only 3% and 7% of small scale and private sector companies respectively that depend on trade union agreements in fixing the rate of earnings for their workers, all of Government departments and public sector companies do so. This is possibly the basis for the huge losses and the low productivity levels in Government departments and public sector companies. If workers can get wage/salary increases by simply exacting their political and bureaucratic powers on Government, there is no reason why they should put in any extra effort. After all, their individual labour productivity has no bearing on the level of their earnings. Even in cases where these public companies have collapsed due to inefficiency, mismanagement and theft, as was the case with Zambia Airways and United Bus Company, all the workers are given full benefits without any effort to bring the culprits to book.

Table 6.12 Determinants of Wages and Salaries in %

	Trade Unions	Government Legislation	Productivity	Other- By agreement	Combination of factors
Small scale Companies	3	1	86	5	5
Public Companies	50	50	0	0	0
Private Companies	7	0	46	11	36*
Government (Central and Local)	27	45	0	0	27•

* Combination of Trade Union and Productivity
• combination of Trade Union and Government Legislation

Source: Mashamba 1995/6 survey data

Although the new productivity-related wage formula should be hailed as a positive step to increasing industrial productivity as compared to the standard collective bargaining and Trade Union formula, it is important to state that we are in no any way advocating the elimination or destruction of Trade Unions. On the contrary, we are suggesting that Trade Unions realise the changing socio-economic environment we are living in and adapt their activities accordingly. For instance, it was very clear during the field trips to a number of informal construction sites that informal construction workers were being subjected to poor working conditions. Workers were seen working on Saturday afternoons, and the whole of Sundays, and without safety shoes, helmets, and any form of protective clothing. Conditions are even worse for many women who break rocks for sale as crushed stone, for use in the construction industry. No doubt this is one of the bases on which informal construction firms are able to sell their products at a lower cost than the formal business: they have very low overheads coupled with the fact that they do not pay any form of taxes, but surely Government should set minimum safety standards even in a liberalised market economy. No surprising, none of the informal sector construction firms in our survey based their wages/salaries on trade unions or government recommended rates, they all based their workers pay on productivity and their ability to pay.

Given the new economic dispensation under the Structural Adjustment Programme and the enabling shelter strategy, there is now a growing need for the trade unions to change their classical view that they hold diametrically opposed interests to the owners of the means of production (the capitalist) to maximise wages and salaries from their labour. The mere fact that the Zambian Government is no longer going to support public sector loss-making companies, and the advent of privatisation, means that the onus is now with the workers to contribute in making

their companies more efficient and profitable, if only to safeguard their jobs and ensure increased earnings. Similarly, companies have to realise also that only a well paid and motivated worker is able to give them his/her maximum input. It is now becoming increasingly evident that the classical Marxist argument that the two parties are at "War" to find which party gains most from the arrangement is out of touch with our new global socio-economic and political environment (Nobbs, 1983, p. 265; 286-292).

6.6.0 Summary

Government's plans in the labour and education sectors of the construction industry and the economy as a whole have been frustrated basically by two main factors:

(a) The lack of money, which has meant that the public sector retrenchment exercise has stalled for lack of funds to pay terminal benefits. The standard of education and training of workers has equally been affected by the massive reductions in the education budget

(b) The power that public workers, especially civil servants, exert over Government when they try to trim the size of this sector and determine productivity and market based wages and salaries.

(c) Low government and private sector capital investment in the construction industry which has resulted in low construction demand. Low construction demand has ultimately resulted in formal construction labour retrenchments.

The failure to successfully carry out the public sector reform programme has had far reaching implications on the construction industry and the rest of the economy. With 86% of Government budget committed to emolument related expenses, it follows that the only way Government was able to commit more money for capital projects and the productive sector was by reducing its wage bill and diverting the money to production. But what we saw was a situation where the Government is held to ransom by the public sector workers and the electorate, to go against its adopted national development strategy. The political decision in giving University students more money in monthly allowances than it gives its own graduate workers has only weakened its case for adopting a productivity related wage/salary structure.

The positive factor to emerge from the little retrenchment that has so far taken place has been the emergence of a vibrant informal sector labour market in almost all sectors of the economy, not least in the construction industry which recorded a 80% increase in our survey. The only drawback has been a complete absence of a comprehensive tax regime in the country, to tax this emerging sector and thereby help in spreading the tax burden that is currently taken by a very small proportion of workers in the formal labour market. Taxing the growing informal sector will also help in boosting dwindling Government coffers. Taxing the informal construction sector would take the form of a building fee for every building contract submitted through the council's

building inspectorate. Admittedly, this would leave out informal housing in the squatter settlements, but at least it would make a start on taxing the sector. Until that is done, Government revenue from income and company taxes will continue to dwindle with every public sector company closed and worker declared redundant.

The high priority that has been given to balancing the national budget above all else has also seen massive declines in the education and training budgets. Although cuts in these budgets have the immediate effect of helping balance the national budget, they have far-reaching long-term implications on the national economy, as this will mean that the future generation will lag behind in technological and managerial skills to compete with other countries in this competitive world. The constant fears of being retrenched from the public sector and the frequent non payment of public sector wages on time (in some cases for months) have also contributed to the very low morale in the public sector. Consequently, public sector urban and construction programmes have suffered, as most of the quality professionals have left the sector for greener pasture in the private sector or simply left the country altogether (See also Cornia, 1996, p. 52). Yet it is very clear, even to the protagonist of the Neo-Liberalist theories and policies, that only a strong and efficient public sector can ensure high urban productivity in Third World countries (World Bank, 1991, 23).

Another area of concern is the gender imbalance in national development issues, especially in the construction industry, where women, despite making the bulk of the national (and urban) population, continue to be marginalised. Rather than look at real issues that disadvantage their participation in national development, the government seems only interested in making symbolic gestures like creating a new department for women that spends almost all its resources on international conferences and seminars, when our women need equal access to business loans, mortgages, assistance to land acquisition, education and training.

Declining wage/salary earnings for workers in the country have also meant that very few people have any savings worth talking about, let alone being able to invest in housing and other related investment programmes in the economy, to stimulate the construction industry.

7.0.0. CHAPTER SEVEN: CONSTRUCTION SUPPLY RESPONSIVENESS TO ADJUSTMENT AND ENABLEMENT CONDITIONALITIES

7.1.0 Introduction

From chapters four to six, we looked at various enabling policies and measures that were put in place by the Zambian Government in an effort to stimulate the construction industry and ultimately the rest of the national economy. In this chapter we intend looking at the net effects that all these apparently unrelated Neo-Liberal legislation and measures have had on the supply side of the construction industry. It is important to note that, in a Neo-Liberal environment, the Government is more interested in promoting and increasing construction supply (output) in direct response to the postulated increased private sector and aggregate construction demand.

This branch or form of macro-economics is commonly referred to as supply side economics, and aims mainly at "managing the level of aggregate supply in the economy" (Warren, 1993, p. 197). This explains the ultimate aim of the combined programmes of structural adjustment and its affiliated policy of shelter enablement in directing their resources at increasing domestic construction supply by eliminating the structural rigidities in the socio-economic and political system of Third World countries. This does not mean that the demand side of the economy is not taken care of or appreciated. On the contrary, increased industrial supply is postulated to lead to more employment opportunities and ultimately to increased incomes, which should ultimately stimulate and sustain construction demand. Warren (1993, p. 180) has argued that supply side economics has the advantage over demand side economics in that it does not cause inflation in an economy as supply is always ahead of demand.

The underlying assumption in the Structural Adjustment Programme and shelter enablement is that the construction industry has been besieged by the problems of inefficiency, high prices brought about by monopoly and bureaucratic tendencies, imperfections in the information available, rigidity in the supply of housing and other related structural and monetary rigidities.

> In fact, in developing economies, the basic indicators of underdevelopment are related to gross inadequacies in physical infrastructure, shelter and related amenities which result from the constraints of the construction sector. Thus, the construction industry can be the backbone of national economic development (Habitat, 1985, pp. 1).

The key policy objectives of SAP and shelter enablement are to remove these "structural and monetary barriers" in the national economy and allow the (construction) industry to perform with the minimum of hindrance from the Government, bureaucrats and politicians. It is important to point out from the outset that, under this new paradigm, the size and quality of the goods and services to be produced are determined through free market forces.

7.2.0 Resultant (construction) supply levels in the industry

We have already seen that the ultimate aims and objectives of both the Structural Adjustment Programme and the Enabling Shelter Strategy as they pertain to the construction industry are to remove the production-bottlenecks and thus attain maximum production levels possible, from the available minimum resources. At this juncture, we will have to remind ourselves of the need to validate these policy measures through testing the sub-hypothesis which states that "construction supply has increased in the last five years that Zambia has applied both programmes of structural adjustment and shelter enablement". To test this sub-hypothesis we will take stock of the amount of construction that has been carried out in the last five years and compare the figures with similar figures of the past, and see if there has been a marked improvement in the period under review. It is important to note, however, that local construction supply can increase in an environment of reduced local construction demand, if the excess supply can be channelled to exports. The case of Chilanga Cement plc, ZAFFICO and Turnall Asbestos Products which have increased production due to increased exports amidst reduced local cement, timber and asbestos roofing sheets demand respectively, will illustrate this phenomenon.

Unfortunately, all the three city councils under survey could not provide precise figures of the amount of construction that took place in their respective cities prior to and during the Adjustment period. The de-politicisation of the informal housing market under the new 1991 political structure of multi-party politics has also meant that UNIP which monitored and kept very good records of the new development in the informal sector is no longer able or allowed to do so under the new multi-party political system. The study will, therefore, use secondary data from the National Housing Authority and the Monthly bulletins of statistics from the United Nations on the overall construction output and Fixed Capital Formation (GFCF) in Zambia (This information was presented in earlier sections of this study). For instance, tables 4.1 and 7.1 clearly showed that there has been little house construction and civil engineering works taking place in the country in the last five years. This was collaborated by evidence in figure 4.1 which showed that both government and private sector investment in construction goods and services have been declining during the period under review.

Table 7.1 goes further to show that in the five years of the Structural Adjustment Programme and its affiliated policy of Shelter Enablement, activities in the construction industry have halved in real terms, although figures at current prices show a 1,235% rise! The steep fall of -23.6% in the growth rate of the industry in 1993 can be attributed to the introduction of the cash budget in the same year, which went further to reduce capital expenditure or public sector construction demand. Although there was little formal sector construction demand, table 4.1 shows that there were

101,110 new informal housing stock (mostly traditional though) compared to only 42,024 formal housing stock between 1991 and 1995.

Table 7.1 Gross domestic product of construction activity between 1991 and 1995

	1991	1992	1993	1994	1995
At current prices in K' millions	8,352.8	20,975.2	61,310.3	65,757.9	65,334.6
At constant (1977) prices	61.8	58.5	44.7	38.7	33.5
Real growth Rate	-1.3	-5.3	-23.6	-13.4	-13.4
In % of GDP	3.8	3.7	3.8	2.6	1.9

Source: Zambia, Republic of, 1996c, (Ministry of Finance)

Another method used to assess the successes in Government's effort of eliminating structural barriers in the industry was by assessing the amount of construction abandonment in the period under review and finding out the reasons for this. In this regard, our study recorded a total of 2,342 commissioned consultancy projects, of which 624 failed to take off, representing a 27% failure rate. While contractors recorded a total of 4,234 contracts, 299 of them failed to reach full completion stage, representing a 7% failure rate.

Considering the very high interest rates, the massive cuts in both Government and the sector public spending in capital expenditure (refer to chapters five) and the steep raise in construction materials (see figure 7.1), the two abandonment rates of 27% and 7% can be taken to be quite low. The wide gap between the consultants and the contractors failure rates, further suggests that most construction projects were abandoned at design stage rather that on site. This is to be expected, in view of the high financial costs involved in abandoning a construction project on site rather than on the drawing board. The absence of corresponding failure/abandonment rates for construction projects before the era of Structural Adjustment and the Enabling Shelter Strategy, denies us the opportunity to compare these figures from the two different eras.

7.2.1 New construction works

Despite the gross neglect of existing infrastructure that is constantly being proclaimed by the new Government, most construction work recorded in Zambia is still basically new works with very little routine and repair works (Financial Mail, 3/12/96). Our field survey found that 85% of the contractors interviewed had 75% of their contracts in new works. The demand for new works is understandable, given Zambia's' population growth rate of around 3.7% p.a., expected to double every 17 years. This extremely high growth rate (currently the highest in the World) obviously demands that new infrastructure be constructed to absorb the added population especially in the

sectors of Education: schools and Universities; Health: clinics and hospitals; and shelter: roads, electricity and water. However, massive cuts in the Government budget for capital expenditure has meant that public sector demand has not been as expected or postulated in Neo-Liberal literature. This is reflected in figure 4.1 in chapter four, which showed that Gross Fixed Capital Formation in Zambia reduced by 27% in real terms between 1991 and 1995. Although there was a 55% increase in private sector consumption, while government consumption fall by 25% during the same period, the increase in private consumption could not be translated into construction demand.

7.2.2 Routine maintenance and construction repairs

In supporting the infrastructure maintenance and repair sector of the construction market, it is important to understand this programme in economic development terms; that is, routine maintenance and repairs to infrastructure is more cost effective than the total renovation of collapsing infrastructure. Moavenzadeh (1987, p. 98) further argues that, since routine maintenance and repair of construction projects are more labour intensive than new construction work, routine maintenance and repair in the construction industry should be more effective in employment creation. This should prove more helpful in providing jobs for the unskilled workers and in the use of local construction materials and contractors. Whereas in developed countries routine and construction repairs take up to 40% of all construction contracts, in Third World countries like Zambia, the percentage share is still relatively very low (Moavenzadeh 1978, p.88).

To illustrate the prominence of the repair and maintenance sectors of the construction industry in developed countries, Hillebrant (1974, p.10) has argued that, in Britain for example, the repair and maintenance sector of the construction industry employs more workers than those in agriculture, horticulture, coal mining, shipbuilding, marine engineering, timber and furniture put together. In Zambia, however, contrary to expectations that the programme of infrastructure rehabilitation under SAP and shelter enablement would see a steady rise in the amount of repairs and routine maintenance to the hitherto run-down infrastructure, maintenance and repairs still only account for less than 25% of all construction contracts undertaken.

Our worry concerning the very low market level for this sector is further compounded by the finding that of the only 3% of the contractors specialising[1] in this sector, are concerned with roads works and none are in the building sector. Although this finding does not tell us explicitly that very little maintenance and repairs are been undertaken to existing Zambia's infrastructure, it does give us an indication of the way things are progressing in the construction market vis-à-vis new

[1]Specialising in this context means having up-to about 75% of contracts in maintenance and repairs, as opposed to new works.

works and maintenance/repairs. It was also very clear during the fieldwork that most public sector buildings, especially schools and Government offices (including the police service) were in very bad condition and needed urgent repairs before they are simply condemned as unfit for human use. Clinics and hospitals on the other hand seem to have benefited greatly from donor support under the Health Reform Programme, as most of them are now in a better condition than they were five years ago.

7.2.3 Industry buildings

Although industrial buildings do not fall under the enabling shelter strategy per se, they are an integral part of the strategy, in that industrial rejuvenation is said to be the key factor for national development and economic sustainability (Adjedeji *et al*, 1991). The construction of more industrial buildings and increased productivity is supposed to lead to economic prosperity and ultimately to full employment, better incomes and more and better housing for workers. Industrial buildings tend to represent large capital investments for both the owners of the building and the contractors undertaking the project. For instance, in 27% of cases, industrial buildings presented the contractors with their largest contracts both in money terms and construction site time. It follows, therefore, that the longer the construction of the project takes on site the longer will the workers, especially casual workers, be in gainful employment.

The privatising of public companies, however, has also meant than most of the new foreign investment in the country comes from buying existing industries rather than building new ones. This has certainly assisted in creating job opportunities, but has done little to stimulate the construction industry. It must be admitted though that most of the existing industries that have been privatised, such as Chilanga Cement plc and Shoprite Checkers plc, have had their physical infrastructure improved (refer to fig. 4.5). Since most foreign investment coming to Zambia is invested in existing infrastructure[2], rather than constructing new infrastructure, this situation has meant that new investment flows in the country cannot be physically corroborated to the levels of construction taking place in Zambia.

7.2.4 Residential buildings

Although shelter is the main concern of the enabling shelter strategy, it is important to recall that other public services such as water reticulation, street lighting, roads and drainage also fall this heading. Prior to 1991 and to some extent recently, the major supplier of shelter in Zambia has been the public sector. In the last 15 years no major housing scheme has been undertaken by any of the local authorities (Refer to table 4.1 and figure 4.1). Ironically, now that Zambia has fully

[2]We will recall from Chapter Four that todate a total of 90 public sector companies have now been privatised, most of which are large companies.

embraced Neo-Liberalism and it affiliated policy of Enabling Shelter Strategy, the Government through Ndola City Council has started building mass housing for rent. The 118 low cost houses at a tender cost of $3.1m being built by the Chinese Government in Ndola's Masala Township is the only major council housing programme that has been carried out in the last five years. Although Local Councils have not built new houses for the last 15 years, the new Government policy of selling council houses to sitting tenants seems to have stimulated the Zambian housing market, with people buying and selling these previously council owned houses.

However, the under valuation and in some cases the giving away of these houses free to sitting tenants has tended to reduce the price levels in the low cost housing market and undermine the building of new houses[3]. House buyers and prospective house builders are realising that it is cheaper to buy one of these former council houses from the new private owners and renovate or extend it, than to buy or build a new one. The Presidential directive to all councils that they dispose of their housing stock, has also meant that there are now more houses on the private housing market and it follows from the principles of demand and supply that house prices should decline.

Table 7.2 Public sector housing stock- in various major cities and towns of Zambia before the sale of public housing

Type of Dwelling	Local Authority owned	Central government owned	Parastatal owned	Total
Low cost	95,955	17,055	39,390	152,400
Medium cost	1,611	4,724	6,145	12,480
High cost	1,261	4,864	6,864	12,989
Total	**98,827**	**26,643**	**52,399**	**177,869**

Source: National Housing Authority, 1995 Lusaka

The scaling down of mining and other industrial operations, including the closures of giant parastatals companies like the United Bus Company and Zambia Airways has also put thousands of former company houses on the private sector housing market. Already Kitwe City Council has had to repossess 100 houses in Ndeke township from the Zambia Consolidated Copper Mines (ZCCM), due to falling manpower levels in the mining conglomerate. In Mufulira, another mining town, ZCCM had to lease 2,900 of its houses to various organisations including

[3] Reference is made to the price movement of real estate in Zambia from the Government Valuation Department, Quarterly Bulletins from September 1993 to December 1995.

Government departments, private companies and individuals following similar reduction in labour-force levels (Times of Zambia, 4/3/96: 19/1/96).

7.2.5 Civil engineering works

The roads and water sector rehabilitation programmes, which have largely been sponsored and undertaken by donor countries on behalf of the Zambian Government, have dominated the Zambian civil engineering sectors of the construction industry in the past five years. The high technology and skills involved in this sector has meant that, despite the visible infrastructure rehabilitation exercise that is taking place in the country, very few Zambian companies have benefited. For example the Water rehabilitation exercise is been undertaken by the Germany Government with their own expertise, while the Road Rehabilitation Exercise has been dominated by Phoenix, a Danish company. Local supplies of construction materials have, however, benefited from this infrastructure rehabilitation exercise. For example, Bituminous Products of Ndola and Crushed Stone Sales of Zambia are some of the local companies that have benefited from the Road Rehabilitation Exercise.

7.3.0 Construction materials

In Zambia, materials costs have been found to account for about 60% to 70% of the total contract value of an average construction project (Fewings, 1991, p.144). From this finding, it is quite obvious that, if any meaningful savings are to be made to the final cost, the main factors to look at should be the choice of construction materials and their cost implications. Prior to 1991, consultants and contractors had no real choice of the construction materials to use, due to the acute shortages that characterised the construction materials market. Consequently, the picture is very different now as consultants and contractors can now specify materials of their choice, depending on their income.

Before 1991, the construction market problem was that of excess demand over supply, coupled with monopoly tendencies of the state companies that supplied these materials. As a consequence, prices of materials were always very high. However, the liberation of the Zambia economy changed the above situation. At present, a variety of imported construction materials are coming into the country thereby eliminating the earlier shortages of construction materials. Prices are also competitive, thereby bringing down the general price levels in the market. The privatisation of most public construction materials companies has also seen the improvement in production levels of some of the locally produced construction materials. Chilanga Cement plc as noted below has been the model of what privatisation can do to ailing public sector construction companies. Kapiri Glass Products looks set to join Chilanga Cement plc as one of the successful companies of privatisation, since the company has attracted new German investment.

Kapiri Glass Products (KGP) the country's sole supplier of glass products was incorporated in 1972 by the state. The company has been making losses for the past 10 years prior to its being sold to a German company for $9.2m in 1995. Expectations are that, with the proposed new Germany investment of $7m, Kapiri Glass Products should now be able to venture into the production of large sheet glass for the building sector. In the past, the company tended to concentrate on bottle making rather than on sheet glass making for lack of appropriate investment and machinery (Times of Zambia, 26/1/96). In the meantime, the country continues to rely on imported building glass panes at great expense.

It is already very clear from the variety of construction materials on the Zambian market that a great deal of effort is being made to develop new and appropriate construction materials. However, unless the aforementioned restrictive planning and building regulations are changed, very little will be achieved. If the private sector is not willing to lead in this direction, as our study suggests, the Government should commission its own Building Department or a private consultancy firm to make these changes, before local and small scale producers of materials are frustrated.

7.3.1 Output, price[4] and supply

The salient aims and objectives of both the Structural Adjustment Programme and the Enabling Shelter Strategy as pertaining to the supply side of the construction market are to improve the quality and quantity of goods and services provided, at much reduced prices. The emergence of the informal construction materials market has seen the formal market increase its dependence on this sector for materials and labour, as a cheap source and a way of avoiding taxes (Moavenzadeh, 1987, p.78). Contrary to most Neo-Liberalist literature in other Third World countries that the informal sector tends to concentrate on local materials, in Zambia we found a different trend among most informal construction material traders. They tend to specialise in the selling of imported materials mainly from South Africa and Zimbabwe, which they buy through cross-border trade and resell on the streets of all major Zambian cities and towns.

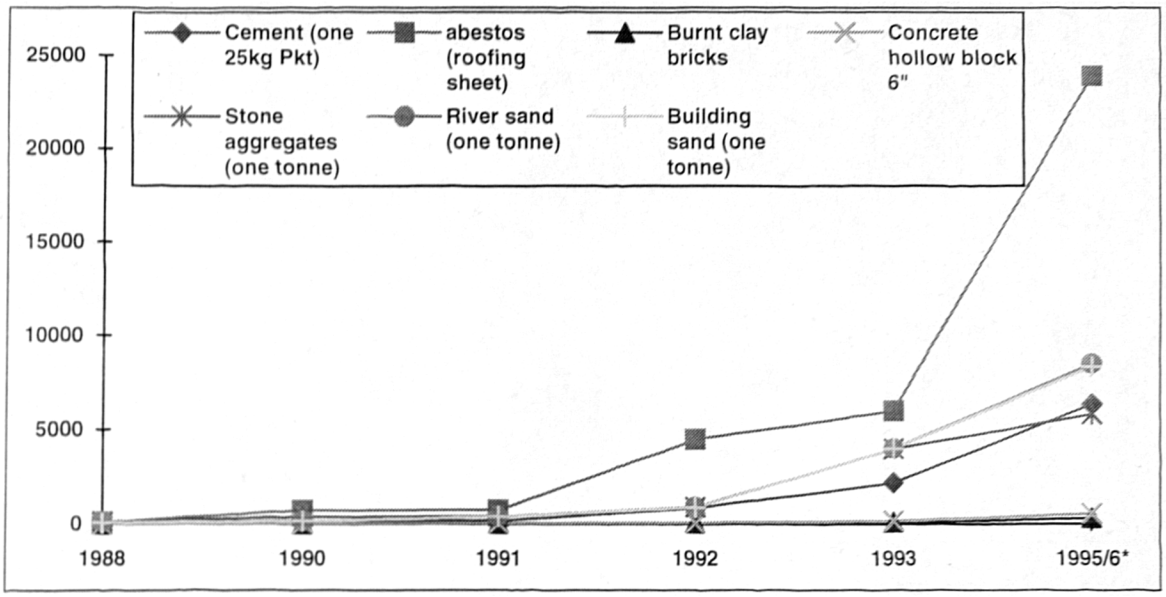
[4]Most of the formal sector price information is based on ZCCM's Construction Department tender price documents between December 1995 and March 1996, and is contrasted with informal sector prices at the same time.

Plate 7.1 Construction materials informal market at Lusaka's main city market

In the absence of other fuels like natural gas and the prohibitively expensive and imported petroleum products, hydro-electricity is the chief fuel for Zambian industries, especially for those companies producing construction materials. For example, electricity accounts for 75% of the total production costs for the Zambia Ceramics of Kitwe. The monopoly supply status of the Zambia Electricity Supply Corporation (ZESCO), in producing and supplying electricity in Zambia, leaves most Zambian companies at their mercy. For example, the introduction in 1995 of a 50% "import surcharge" on electricity bills exceeding 1,000 kW/h monthly consumption rate increased the cost of most locally produced goods in Zambia. Companies like Zambia Ceramics were effectively pushed out of business with this overnight 50% increase in addition to 20% excise tax and 20% VAT[5]. It is no wonder that imports are costing much less than Zambian goods and services.

[5] In all fairness, financial problems for Zambia Ceramics started before ZESCO effected this 50% electricity import surcharge.

Fig. 7.1 Average cost of some building material in Zambia 1988-1996



Source: Lubaba, 1993, p. 4 with *additions Mashamba 1995/6 survey data

Table 7.3 Rise in price of some building materials in Zambia 1991-1995/6 in %

Product	Price in 1991	Price in 1995/6	% increase at current (Nominal) prices	% increase in $ (real) prices*
Cement (one 25kg Pkt)	175	6,350	3,529%	135%
Asbestos (roofing sheet)	734	23,880	3,153%	117%
Burnt clay brick	11	300	2,627%	88%
Concrete hollow block (6")	27	550	1,937%	34%
Stone aggregate (one tonne)	400	5,808	1,352%	-11%
River sand (one tonne)	380	8,500	2,137%	47%

* This % increase is obtained by converting the prices of building materials in 1991 (I$=K65) and 1995/6 (I$=K1,000) in US $ at the then ruling rate, to take into account inflation and devaluation

Source: Mashamba 1995/6 survey data with 1991 price from Lubaba 1993, p. 4

Another important salient feature of the Neo-Liberal policies is the elimination of monopoly tendencies, such that no one company has control over the supply of one construction material so as to influence price. This will obviously take time to effect, but already the country has seen the emergence of small scale companies influencing the aggregate supply of most materials like cement blocks, timber and so on. Although the quality of most products coming from the informal and small scale sector is quite low, it is hoped that competition for the market and more

especially from imported products and the elimination of Government protectionist policies will quickly raise these standards.

Table 7.4 Sources of construction materials (for construction suppliers and traders) as % of total

Construction Material	Formal market (e.g. Hardware Shop in CBD)	Informal outlet (Open air traditional markets)	Direct import from abroad
Iron and Steel	57	36	7
Timber	54	46	0
Cement	100	0	0
Electrics	78	11	11
Blocks/Bricks	33	67	0
Grass	67	33	0
Burglar Bars	38	62	0
Plumbing items	100	0	0
Aggregate	33	67	0

NB. The informal sector buys cement directly from Chilanga cement and then resells informally (see also fig. 7.5)

Source: Mashamba 1995/6 survey data

Another very apparent observation that was confirmed in our study was the increasing role that the informal sector is playing in the supply of construction materials in the Zambian construction market. For instance, in the supply of cement blocks and bricks, burglar bars and aggregates, the informal sector is now the leading supplier of this product to the industry, controlling 67%, 62% and 67% respectively of the construction market. Our study also revealed that the informal sector is slowing taking a larger market share of the timber market with a current market share of 46%. Understandably, some of the lowest market share for the informal sector in the construction supply market was recorded in the Electrics field, where as we would expect customers to prefer some form of guarantee on the products that they buy. But unfortunately, most informal construction traders/suppliers tend not to operate from permanent premises, making trade assurances or guarantees very difficult if not impossible.

But in areas where such guarantees are not necessary or the product can be inspected at the point of sale, for example sand, crushed stones or burglar bars, the informal sector traders/suppliers seem to be competing very well if not better than the formal market traders/suppliers. It is clear from table 7.5 that the reason most construction merchants choose to buy their construction

materials from the informal sector is because of their cheap prices when compared to the formal sector.

Table 7.5 Reasons for obtaining materials from table 7.4 above, % of total

Construction material	Only source	Good source	Cheap source	Credit facility available	Other reasons
Iron and steel	13	37	44	0	6
Timber	42	0	54	4	0
Electrics	0	78	11	0	11
Cement	43	0	43	7	7
Blocks/Bricks	0	0	100	0	0
Glass	100	0	0	0	0
Burglar bars	0	11	89	0	0
Plumbing	0	50	50	0	0
Aggregates	0	0	100	0	0

Source: Mashamba 1995/6 survey data

Table 7.6 Is getting these materials a problem?

Construction material	Facing problems in getting material	No problem in getting material
Iron and Steel	6	94
Timber	0	100
Electrics	9	91
Cement	0	100
Blocks/bricks	0	100
Glass	0	100
Burglar bars	0	100
Plumbing items	0	100
Aggregates	0	100

Source: Mashamba 1995/6 survey data

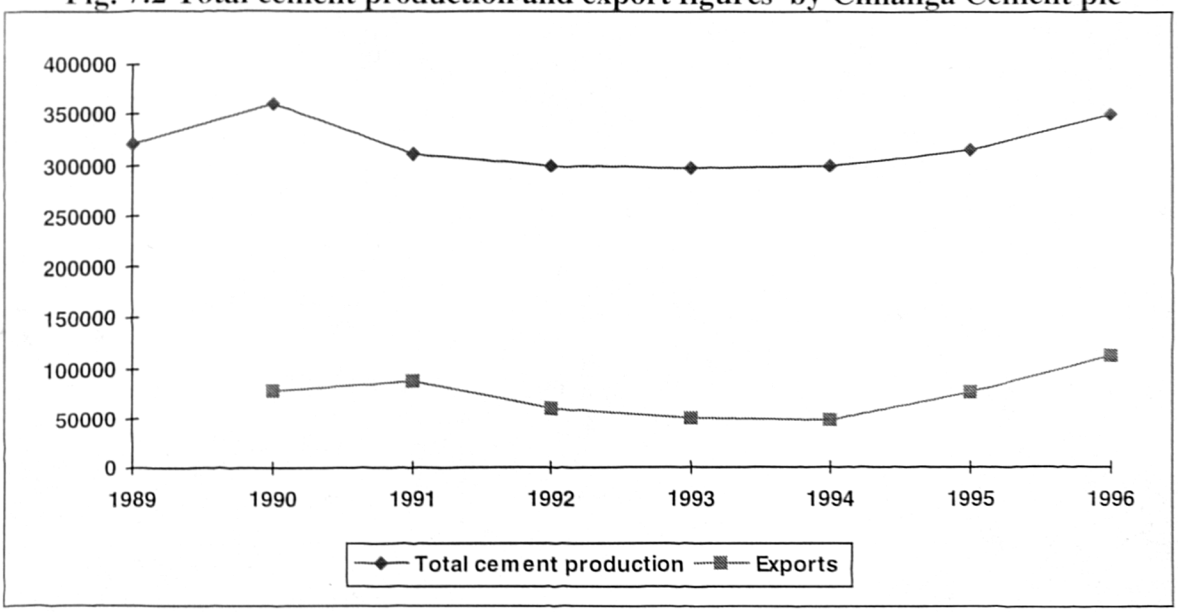
7.3.1.1 Cement

The explicit mention of Portland cement in Zambia's' building regulations as the binding material for building construction purposes has resulted in Portland cement being the main building

material on all building sites in Zambia. Although lime was used successfully in the rural areas by the early missionaries, its deliberate omission in statute books means that it can not be legally used in Zambian urban areas. Although cement is produced locally, the fact that it is produced by one company: Chilanga Cement plc, means that monopoly price tendencies are very much in evident. For example, figure 7.1 and table 7.3 show that cement has had the highest nominal and real price increase between 1991 and 1996 of 3,528% and 135% respectively. It is fair to say, however, the reliance on electricity for cement production and the recent liberalised/market prices for electricity will have contributed significantly to these price increases. The absence of a perfect substitute that will be accepted under the country's building regulations means that Chilanga Cement plc totally controls the market in that respect.

The privatisation of Chilanga Cement Products and the subsequent listing of the company on the Lusaka Stock Exchange has seen it increase its industrial production. With both the Government and the ZCCM reducing their capital projects, Chilanga Cement Plc now produces cement in excess of local demand. Chilanga's maximum production capacity at both its Chilanga and Ndola plants is 500,000 tonnes of cement per annum, although it is currently operating at 65% capacity (producing only 335,000 tonnes), meaning that there is still room for both local and export expansion. Zambian cement already finds a market in Tanzania, Malawi, Zaire, Namibia, and Burundi, which despite the war was said to have increased it cement imports by 50% in 1995 (Mutukwa, 1996, p. 29).The export sales figures for Chilanga cement Plc increased from 38,826 tonnes in 1995 to 111,758 tonnes in 1996, the high increase is be attributed mainly to the end of the war in Burundi and increased orders in Zimbabwe (Financial Mail, 18/03/97).

Fig. 7.2 Total cement production and export figures by Chilanga Cement plc



Source: Monthly bulletin of Statistics, 1997, p. 72, (additions from Financial Mail 20/1/97)

Table 7.7 Chilanga Cement export figures in the Southern African region

Country	Tonnes	% of Exports
Malawi	11,247	39
Burundi	8,513	29
Zaire	4,447	15
Tanzania	3,416	12
Namibia	660	3
Mozambique	361	1
Zimbabwe	282	1
Total	**28,926**	**100**

Source: Chilanga Cement plc (P. Gorman-General Manager), 1995

Ideally, under circumstances of reduced cement demand, the price of cement should have been falling or have fallen but the rise in price of other inputs have prevented this from happening. It is very common to see informal traders by the road side selling cement bags below the retail price in most established hardware shops. For example, whereas the factory price at Chilanga Cement plc was K4,906 for a 25Kg bag of cement, we found on average most formal traders in Kitwe selling the same bag at K6,500 ($6.50) and the informal sector average price was K6,200. Most informal traders were willing to negotiate the price, if one was buying in bulk. It was unfortunate to note, however, that most informal sector traders did not keep their cement in dry and sheltered conditions, so that their cement cannot be guaranteed to be good condition (see plate 7.2). Obviously, competition between the formal sector shops and the informal traders is working to the advantage of the consumers by keeping the prices down. However, the failure once again by the Government to tax the informal sector means that government is losing Millions of Kwacha in uncollected company and income taxes, at a time when it badly needs this money to finance various other programmes.

Plate 7.2 Cement sales through the informal sector market in Lusaka's SOWETO market

The other serious mistake Government made in view of its own anti-monopoly policies was to sell both the Chilanga and Ndola plants to one owner, rather than sell the two plants separately and let the two compete. This would have helped in keeping prices low at factory level.

7.3.1.2 Aggregates (Crushed stones and building /river sand)

Crushed stone and building/river sand, or simply aggregates as they are commonly known, are both used in building and civil engineering projects. In the building sector, aggregates are used mainly in floor slab and beam construction, whilst in civil engineering sector aggregates are used for consolidating the base of foot paths and roads. The "aggregate business" has not been the same ever since women along Kafue Road started manually crushing stones from the surrounding large rocks and others picked sand from the river banks of the surrounding streams and rivers. This not only brought the price of aggregates down, but also saw the Government-owned Crushed Stones company start to concentrate its business on supplying the large scale consumers like road contractors. Table 7.3 shows that aggregates are the only construction material that have had their price reduced in real terms (-11) during the last years of Structural Adjustment, although in nominal terms the increase was 1,352%. Obviously, the role of the informal sector will have contributed to this relative nominal low price increase between 1991 and 1995/6, although the fact that there is no foreign exchange involved in breaking these stones will be another important

factor. It was also quite clear during our field survey that most small scale consumers of aggregates were opting to buy their supplies from the informal traders whose price was far lower than those charged by the formal crushed stones companies who on top of their high prices, had to add VAT (refer to Table 7.4).

In Kitwe, for example, one load (1 cubic metre) of building sand from the formal sector was selling at K8,316, whereas the same load was being sold from K6,600 to K8,000 by informal sector traders. We also noticed a tendency by most of these informal traders to charge different prices for their goods depending on the looks and status of the customer. The informal business of selling aggregates has now spread to all other major towns and cities in Zambia. Where ever you see a construction site, there is bound to be these informal sector traders dealing in aggregates. They tend to be women and children. Our only health and safety concern with this emerging market is the lack of protective clothing for these women and children. But as Hansenne (1991, cited in ILO, 1995) has argued, the informal sector cannot be helped by merely creating a less discriminatory policy environment or by giving it public money. The sector needs special attention and assistance from the Government, if it is to over it 'teething' problems. The Environmental Council of Zambia and the Minister of Environment and Natural Resources have now added their concerns to this growing trade, citing the environmental damage that these mostly enterprising women and children are causing to the areas in question.

> The illegal quarrying for building sand and stone for building purposes which began on a small scale has now reached worrying proportions and whilst my ministry does recognise that the small scale stone-breaking industry is good enterpreneurship and job creation initiative which needed to be encouraged, this activity needed to be controlled as a matter of urgency because the health, economic and environmental consequences are far reaching. [Mr. William Harrington: Minister of Environment and Natural Resources (Daily Mail, 19/6/1996)].

Plate 7.3 "Loads" of manually crushed stones for sale: By the informal sector in Chilenje South Extension

7.3.1.3 Cement blocks, burnt bricks and chinaware

In Zambia, there is a strong tendency to use more cement blocks than ordinary burnt bricks, as can be seen by the high percent of companies that are involved in cement block making as compared to brick making. This is to be expected considering the high price of fuel (electricity, petroleum or firewood) incurred in making burnt bricks. Past experience of large state companies with Government support that have failed to make it in this business could also have added in discouraging most entrepreneurs in going into this business.

In 1967 the Zambian government formed a parastatal company by the name of Nega-Nega brickworks for the sole purpose of supplying the Zambian construction industry with burnt bricks. The company soon ran into serious problems (in 1981) and was never really able to satisfy local brick demand. Another parastatal company, Kalulushi brickworks was also commissioned with a view that the company would serve the Copperbelt region. Zambia Ceramics Limited, another state owned company in Kitwe involved in the production of bricks and sanitary products, is in serious financial trouble. At the time of our field work, the company had not paid its workers for over six months. Its Commercial Manager, Mr. Lackson Chiana, was quick, however, to point out that the company's problems were mainly because of the delayed process of privatisation. He

further explained that, although the company had export orders from South Africa and Botswana, it was unable to meet the orders as it was operating at only 20% of its capacity for lack of fresh capital to replace and maintain the existing machinery, which was old and constantly breaking down. The problems the Zambia Ceramic Company are currently facing are basically the same as those that forced the closure of the Nega-Nega brickworks: sophisticated and imported machinery which need imported spare parts thus requiring foreign exchange and, specialised manpower to run them (Chakwe, 1983).

Following the demise of all the public sector brick making companies and the liberalisation of the economy, some private and small scale companies have since taken up brick making. One good example is that of Jupiter Pottery Works of Ndola that recently acquired a K18.5m brick and chinaware Kiln from South Africa, to boost its existing chinaware and brickwork capacity. Jupiter Pottery Works managing director, Mr. Tresphor Muyagwa, said that with the acquisition of this new kiln he expected to attain a production level of about 5,000 bricks per week. The company also has plans for the production of toilet cisterns and wash-hand basins.

Plate 7.4 Cement blocks made by the informal sector: Notice the poor quality, especially the rounded and broken edges

We found a varying range of prices for concrete cement blocks and burnt bricks, although it must be said that most burnt bricks we came across were of very poor quality (see plate 7.4 above). Consequently, prices in the informal sector were again much cheaper than those in the formal

sector, but none of the informal sector block/brick makers had any equipment to measure or test the load bearing capacity of the products.

7.3.1.4 Roofing sheets

Despite the overwhelming scientific evidence that asbestos roofing sheets cause cancer, asbestos roofing sheets continue to be the most commonly used roofing material in Zambia. This is partly because they are produced locally and are, therefore, cheaper than clay tiles or corrugated iron sheets. The advantage of an asbestos roof is that it is lighter than a tiled roof and does not need trusses. Simple purlins without the support of trusses tend to suffice on a low to medium cost house. Corrugated iron sheets have the disadvantage of needing constant painting and maintenance, making them more expensive in the long-run. Although a number of small scale companies are now engaged in producing clay and cement roofing tiles, their use is still minimal because of the strong roofing structure that is needed to support the heavy tile roof.

Turnall Asbestos Products (TAP) are the sole producers of asbestos roofing sheets in Zambia; they also produce asbestos pipes. The company currently has a production capacity of 30,000 tonnes although plans are already underway to increase it to 70,000 tonnes, mainly as a result of increased export orders from Namibia and Malawi. We did not find informal sector traders engaged in the selling of asbestos or corrugated iron roofing sheets and not surprisingly, there was very little price differences in these materials in the formal shops we visited. For Asbestos building products the prices were almost uniform with price variations of only K200 ($0.20), which could be attributed to having manufacturing and distribution centres for these products in Lusaka, Ndola and Kitwe by TAP Building products. The recent hike in the price of asbestos roofing sheet from K734 in 1991 to K23, 880 in 1995/6 (a nominal 3,153% increase) is likely to discourage low income earners from using this material and finding other cheaper alternatives in future.

7.3.1.5 Steel

With the break up and privatisation of the former Zambia Steel and Building Suppliers, Shonga Steel Limited now has a virtue monopoly in supplying the construction industry with construction steel, which it imports from Zimbabwe and South Africa. The bulkiness and weight of steel makes it extremely difficult for small scale suppliers to enter into steel importation and local redistribution. There are mainly two types of construction steel sold by Shonga Steel namely Mild steel rods and iron reinforcement bars, both starting from diameters of 6mm to 32mm. The monopoly status of Shonga Steel in supply construction steel meant that there was no marked difference in the price of steel within the individual cities surveyed, except that prices were cheaper in Lusaka than in Ndola and Kitwe due to transportation costs.

With most buildings being low rise, we would have expected a low rate of steel work in the Zambian building industry, yet the opposite is true. The very high rate of burglary has forced many households to build steel grill doors and burglar bars to all windows.

This trend of "fortressing buildings" has helped in promoting the businesses of most informal sector steel welders. All the major roads in the markets of the three cities of Lusaka, Ndola and Kitwe are filled with traders dealing in burglar bars, steel grille doors and steel gates. The only problem with this development, from an economic point of view, is that steel has to be imported, and this is costing the country foreign exchange. For example, a 12 metres 6mm diameter mild steel rod was costing K2, 460 ($2.46), whilst a 32mm diameter, 13 metres rod was costing K81,208[6] ($81.21) at Shonga Steel. It was not surprising, therefore, to notice during the field survey that most informal sector manufacturers were using recycled iron and steel. This led to unsubstantiated reports that some unscrupulous businessmen are involved in vandalising electricity pylons and other iron and steel structures, for use as scrap metal, which in turn is used for making burglar bars and other steel products in the building industry.

7.3.1.6 Timber

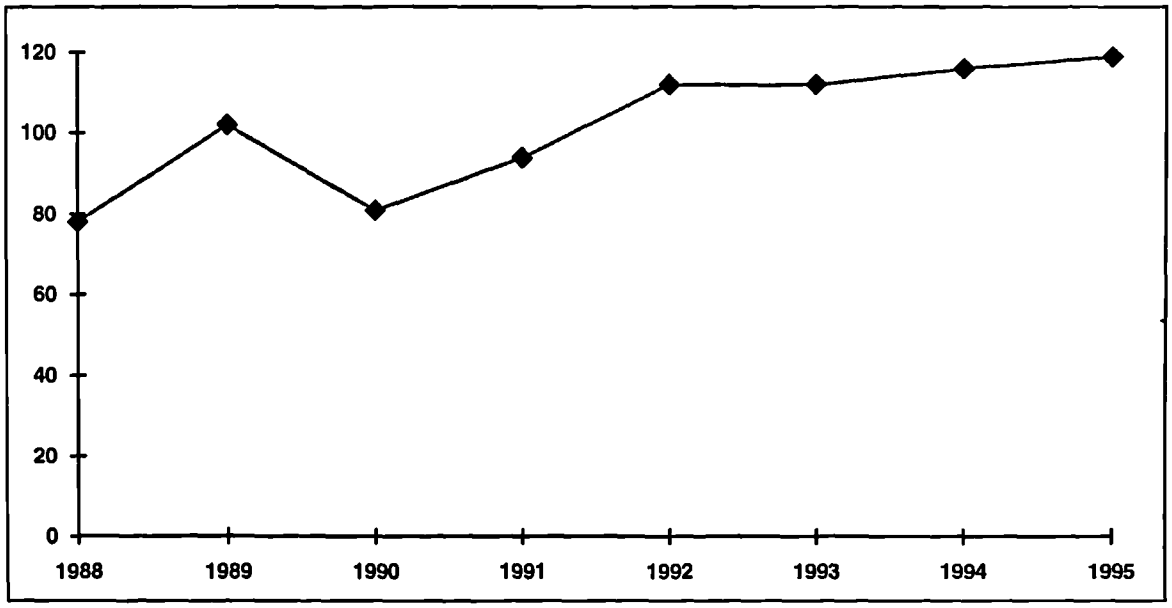
Although Zambia is endowed with a variety of timber species, its planning and building regulations still does not allow for timber building structures. The key argument being that timber buildings are susceptible to termites and would easily spread fire to surrounding buildings in case of a fire. Yet there are studies to prove this theory wrong. For examples, studies by fourth year Architectural students at the Copperbelt University in various parts of Zambia, have shown that timber buildings built by the early missionaries are still standing, despite the poor maintenance given to these buildings. We are of the view that, allowing timber buildings, especially houses in designated council areas would create more job opportunities for the carpenters in the construction industry and at the same time put cheaper houses on the housing market. This would in-turn promote the local timber market and job opportunities in the timber business.

Currently, Zambia earns in excess of $800,000 annually from the export of timber products to Tanzania and Namibia through the State owned Zambia Forestry and Forest Industries Corporation (Financial Mail, 5/11/96). This is despite the timber export curb by Government, which limits the amount of timber to be exported from Zambia to 75% of the total production. Making the announcement in Lusaka, the Environment Permanent Secretary, Mr Peter Mwamfuli, said the export limit was "a way of regulating the industry and protecting the local industry" (Times of Zambia, 20/10/95). This is clearly another contradiction on the part of Government and its policy of letting market forces determine the demand and supply of goods in

[6]At the time, this was about two months salary of a government school teacher.

the economy. With such Government export controls, which will inevitably mean more bureaucratic paper work in monitoring this 75% limit, it is likely that we shall see more illegal export of timber and the loss of Government revenue. We must emphasis here as well, that the increase in timber exports have been made against a backdrop of reduced local demand, especially by Zambia Railways who are now replacing their timber sleepers with concrete ones.

Fig. 7.3 Zambia's sawnwood production in thousand cubic metres



Source: National Nations-Statistical Yearbook, 1996, p. 454

Whereas we support Government efforts in trying to ensure sustainable practices in the timber industry, we strongly feel that the above measures by Government are not only counter-productive to the construction industry and the economy as a whole, but that they will fail to achieve their desired aims and objectives. For instance, it is an "open secret" in Zambia that hardwood like Mukwa from the North-Western Province is finding its way to neighbouring countries outside the formal market and this control will only encourage this trade. Instead we propose that timber merchants be required by law to plant more trees than they cut down, and impose a timber tax on the sale of timber that would be used for afforestation throughout Zambia.

Plate 7.5 Informal traders selling timber by the main road side: Kitwe -Ndola dual carriage road

7.3.2 The use of indigenous construction materials

Without doubt, the number one factor that is hindering the use of indigenous construction materials in Zambia and in other parts of the World has been the old and restrictive planning and building regulations (Habitat, 1985b). Although the University of Zambia, the National Housing Authority and the National Council for Scientific Research have all done some research and produced some prototype indigenous materials for use mainly in house building, none of these prototypes has been developed commercially. For example, the National Housing Authority's sisal reinforced cement roofing sheets, though tried and tested on some demonstration houses in Lusaka, have not been replicated on any of the Authority's housing schemes, those of the local councils nor by private house builders.

7.3.3 Research into new low cost construction materials

Despite successes achieved in producing skilled construction manpower, the two Universities including the National Council for Scientific Research (NCSR) have failed to develop innovative and appropriate construction materials and techniques for the country. Although the National Housing Authority (NHA) and the National Council for Scientific Research have previously developed Cement Fibre (Sisal) reinforced roofing sheets and the stabilised soil blocks. These

products have received very poor publicity throughout the country that very few people outside these two institutions know anything about them. For instance, 69% of our respondents had no idea of any type of research conducted in the Zambian construction materials field.

As research is expensive, it is most likely that only large public construction companies can afford to spend money researching cheaper and more efficient production methods (Warren, 1993, p. 99). With the new Government policy (under SAP and the enabling shelter strategy) of breaking down the large parastatal companies in favour of the small scale private companies, we fear the likelihood of reduced research in the industry. Without research the Zambian construction industry risks lagging behind her competitors within the Southern Africa region and the rest of the world. It is important that other strategies are found for financing and carrying out research in indigenous materials and construction methods, as this is the only way of finding appropriate construction methods and materials for Zambian conditions (See also Briscoe, 1988, p. 288).

It is important, however, that research results are effectively disseminated throughout the industry. There is no point in Government having to spent millions of dollars in scared resources for such research, if all this information will just end up as published papers in foreign journals without any meaningful benefits to the country. From our field results, it very clear that the lack of an efficient information system for the construction industry has played an important part in the failure to disseminate research findings.

7.4.0 Construction imports

The liberalising of the Zambian economy under the Structural Adjustment Programme has no doubt seen the hitherto "closed" Zambian market opened up to foreign goods and services, not only in the construction industry but also to the rest of the economy. Whereas in the past Government policy was geared towards import substitution and protectionist policies for infant domestic industries, now imports are allowed 'freely' into the country and local companies are expected to compete with foreign and established companies. The immediate impact of this import liberation policy on the Zambian construction market has been to ease the former shortages of construction materials and thus minimise delays on construction sites. It should be noted that short construction periods also mean lower construction costs, especially in countries with high inflation like Zambia.

The absence of iron and steel works in Zambia means that all construction steel used in reinforcement and iron-mongery is originally imported and later redistributed locally by local suppliers. Table 7.4 also shows that only Iron/steel and construction electric goods have a higher direct import content than any other construction material in Zambia. The poor quality of some of

the locally produced construction materials has in the past also resulted in the importation of construction materials. For example, the poor quality of fair faced bricks in Zambia, resulted in the importation of the same material from Zimbabwe when building the Lusaka High Court extension. The inability in the past of Kapiri Glass Products to produce large sized glass panes also led to the country importing building glass panes, although this was done by Zambia Steel and Building Suppliers (ZSBS) who later redistributed locally. Very few informal sector traders who normally engage in cross border trade if any are likely to fill the void left by ZSBS in importing glass considering the fragile nature of the product and the transport means they use i.e. public transport.

7.4.1 Sources of construction imports

As has already been alluded to, most our of respondents obtain their construction stock from South Africa and Zimbabwe. The easy access and short distances involved would appear to be the main reasons why the formal and informal sectors prefer these two countries. The Zambia Association of Chambers for Commerce and Industry (ZACCI) has accused the Zambian Government in the Zambia Revenue Authority (ZRA) of laxity in collecting customs duty and corruption as the main reasons why informal traders and smugglers are rushing into this form of business (Profit, 1995, p. 12). There is need for Government to investigate this allegation and should investigations it right, the Government should move in quickly and seal these loop holes. Failure will mean that the Government will continue to loss millions of Kwacha through such illegal operations. The high production costs emanating partly from high taxes of Zambian products have only gone to encourage the importing of cheap construction goods. It must be noted, however, that informal traders tend to deal in small construction items like mortise locks, lamp holders, putty, electric switches and so on, rather than bulk items like bath tubs, or geysers which are still dominated by the formal sector.

7.4.2 Effects of imports on the local industry

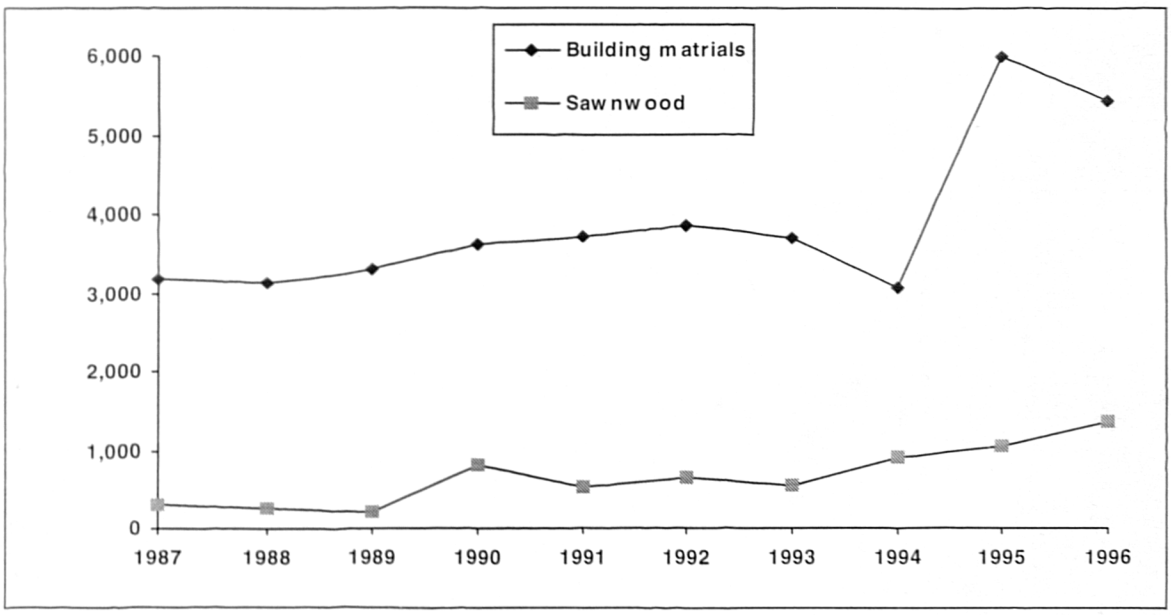
The positive impact of the import liberation policy was well appreciated by the respondents, 73% of our respondents said that imports had helped their businesses. Only 17% saying otherwise, with the remaining 10% not quite sure or not responding to this particular question. We note also that the 17% of the respondents that said they had not benefited from the import liberation policy were mainly manufacturers of construction materials, who were now having to compete with cheap, and in most cases superior products from South Africa and Zimbabwe. This is not withstanding the findings by most researchers that the importation of most construction inputs in developing countries are providing marginal benefits to the national economy (Habitat, 1985, p.7).

The reliance on imported construction materials means the use of foreign exchange and very low multiplier effects. The dependence on imported materials also means that the local industry has to decline to give way to these imports, thereby reducing Government revenue collected from domestic company and income taxes.

7.5.0 Stimulating construction exports

With an external debt of $6.2bn, and Zambia's traditional export copper fetching less and less on the London Metal Exchange, the desperate search for more non-traditional exports has taken top priority in Zambia's development policies. In this respect all sectors of the economy are expected to earn some foreign exchange through promoting production and exports. Some construction companies notably Chilanga Cement plc and the Zambia Forestry and Forest Industries Corporation (ZAFFICO) are exporting their products and earning some foreign exchange. For example figure 7.4 shows that export earnings from building materials and sawnwood increased by 62% and 99% respectively between 1991 and 1995[7]. Note, however, that the reduction in exports earnings from construction materials between 1993 and 1994 was as a result of Zambia applying economic sanctions on Burundi following civil unrest in that country, which is one of the main importers of Zambian cement. Ideally, the exports figures should be increased only in markets where domestic consumption figures are met but, as we have seen with cement export sales, reduced national demand has helped Chilanga Cement Plc to increase its export figures.

Fig. 7.4 Zambia's construction export earning between 1987- (August) 1996 (US$',000)



(NB. 1996 figures are only up to August 1996) Source: Zambia Republic of, 1996c, p. 16

[7] 1996 figures are only up to August 1996.

The text book strategy and that of the Zambia Association of Chamber of Commerce and Industry and the Zambia Association of Manufacturers for rising exports has always been to ask Government to give tax incentives (or subsidies) to exporters (Mutukwa, 1996, p. 10-14). The problem with this strategy, especially in this Neo-Liberal global economy is that it overlooks the point that producers in other countries can retaliate by raising their import tariffs or simply ask their own Government for similar incentives or subsidies. This in our view is not the solution. The solution lies in increased productivity and efficiency, which the Government can help through education and training, but the onus lies with the management of local companies.

The only strategy for companies in the construction and other industries to win exports orders is to attain high efficiency levels and reduce their production costs. With the birth of COMESA and the signing of the World Trade Organisation agreement to cut down on tariffs and eliminate unfair trading, Zambian companies will soon learn that only efficiency and good quality goods and services are the key to the promotion of exports. Chilanga Cement Plc is one good example of how privatisation coupled with good management can lead to more export orders for Zambian construction companies.

The traditional strategy of lowering the exchange rate (devaluation) is no longer a viable option given that the rate of foreign exchange is now determined solely by the forces of demand and supply on the Zambian money market. Besides we have already seen that even in instances when the Kwacha has been falling rapidly (in essence devaluation), Zambian companies have failed to break into foreign markets. From past experience we can say that in Zambia devaluation in essence means increased fuel prices and therefore, increased production costs for local companies, thereby negating the cost advantage brought about by devaluation.

The other important factor to be considered in the export promotion drive is the quality of goods and services. Years of Government protection of local industries seem to have done more harm than good to the quality of most Zambian goods. Aked (1995b) has gone even further to warn that, although regional and world trade barriers are likely to go within the next few years, the biggest obstacle to Zambia's export drive is the "quality barrier."

The 5% import levy for goods into Zambia since 1995, that the Zambian companies asked for in the first place, has also back fired on them, as it does not discriminate between raw materials, intermediate goods and finished goods. Thus, in effect, the new 1995 import levy has had the effect of increasing the cost of production for most companies dependent on imported raw materials and making their goods even more expensive than imported goods. With a continuos downward fluctuation of the local currency the Kwacha, we would have thought that domestic

companies would be interested in entering the export market, so as to sustain the continuos increases in input costs due mainly to exchange losses and salary/wage increases.

The case of Chilanga Cement plc, Turnall Asbestos Products, and the timber subsector have shown that Zambia has the capacity and ability to enter the construction export market, but as figure 7.4 will show, current export figures are still very low. It is expected that once Zambia Ceramics Limited is privatised, the new owners can service the modern but unserviced equipment and increase its current 20% operating capacity. With local construction demand now significantly reduced, it should not be difficult for the company to export its excess production of ceramic and roofing tiles, ceramic toilet pans and wash-hand basins.

7.5.1 Targeting the international and regional construction markets

Studies from around the world show a close relationship between countries with a high GNP and a high export base. The recent signing of a zero rate tariff by the year 2000 by the Common Market for Southern and Eastern African opens up export markets for Zambian goods and services. Zambia has also signed the Southern African Development Community (SADC) trade protocol which is designed to eliminate all barriers to inter-SADC trade, import tariffs, and quantity restrictions, and will become operational as soon as two thirds of the member states ratify it.

Until now, the complaint by most Zambian companies was that they could not penetrate Southern African markets (especially those of Zimbabwe and South Africa) because of the very high import tariffs that these countries had imposed on Zambian exports. The significance of these trade arrangements in either SADC or COMESA can best be seen in the fact that the Eastern and Southern African market has a total population of over 215 million and a combined GNP of $134,305m, more than 50 times the local market..

What makes this Eastern and Southern African Common Market more interesting from a construction point of view is that two of the member states, namely Angola and Mozambique, are just coming out of civil wars and are now rebuilding their physical infrastructure. South Africa, the region's economic giant, has also only recently gained majority rule and is in a hurry to redress the housing and social infrastructures imbalances left under the apartheid era. There is currently in motion an ambitious £2bn housing scheme to build about one million houses in the next five years, and the rest of the region is eagerly waiting to share the cake. To try and achieve this task, the South African government has recently set up a National and regional Housing Boards, coupled with government housing subsidies to try and solve its housing crisis (Ofori *et al*, 1996, p. 215) The opening up of the Southern African Market also brings in a richer clientele, for

example, the average Tswana and South African has an income of $2,600 compared to the local income of $290 in Zambia.

Clearly the legislative process has been set and the future now looks promising, but, the Zambian construction industry is unlikely to be ready to exploit these opportunities in the larger the regional market. This is because of the very low percentage of companies intending to expand into the export business. Only 1% of our respondents had any immediate plans (in the next five years) of expanding their businesses to cater for export orders or commissions and yet the free trade area comes into effect in the next four years. This raises serious doubts, concerns and questions about the management and operations of our construction industry. Obviously, there could be other reasons for this but, from our previous chapters, we know that the very high interest and inflation rates have been major factors in inhibiting businesses from securing loans for business expansion and quality improvements.

7.6.0 Summary

There has not been an industrial miracle in the supply side of Zambian construction industry in the past five years, but positive steps and gains have been taken. The supply-side economics that the Government has adopted for the whole economy seem to have achieved some results, especially in eliminating the hitherto acute shortages of construction materials in the country (see table 7.6). This has been achieved mainly due to new Neo-Liberal Government policies that have eliminated state monopolies in construction materials supply and the promotion of small scale and private contractors and suppliers. It was also clear from figures 7.1 that the reason why there has been an apparent local supply excess to support increased exports was that local construction demand has reduced resulting in reduced real growth for the industry. This fact is further supported by comparing, for example, production and export figures of cement and sawnwood, which show that whereas the country increased export earnings by as much as 62% and 99% respectively, the corresponding production figures were no way near those percentages. It is therefore, doubtful that in the event that local construction demand was to be increased, the country could be able to export and earn such amount of foreign exchange from construction based products.

The privatisation of State monopolies like Chilanga cement plc and Kapiri Glass Products to single private investors have failed to eliminate monopolies altogether in that they have only transferred state monopolies to private sector monopolies. Although monopoly has been said to be detrimental to consumers, the case of Chilanga Cement plc demonstrates that private sector monopolies can still respond to market forces and even earn foreign exchange through exports. Although private sector monopolies do not benefit the consumers directly, they can help in

balancing the country's trade and ultimately the local economy if only they can employ good management techniques, efficient production methods and compete with foreign goods and services.

The private small scale and mainly informal sector entrepreneurs in the construction industry have also contributed significantly to filling the void left by the liquidated, closed or privatised public construction companies either as contractors or manufacturers of construction materials. The buying and selling of construction materials among the various sectors of the industry results in an interaction by all these sectors as can be seen in figure 7.5 Although there is little interaction between the large scale formal and the informal sectors, there is much more interaction between the small scale formal and partly the medium scale construction firms and the informal construction sector. We note, however, that quality assurance for most goods and services in the emerging informal sector and some in the formal sector are still very much below international standards to make a break into the export market. Archaic and very high planning and building standards have also made it hard for innovative local companies that are prepared to research into appropriate and indigenous construction materials that do not conform to current planning and building regulations.

With a very devalued local currency running at $1= K1300, one would have thought that the macro-economic conditions are favourable for local construction companies to emulate other sectors of the economy (see table 7.8) and enter into the export business but this is not the case. This goes to confirm Mosley and Weeks' (1993) findings that most Sub-Saharan countries that have hitherto been dependent on exporting primary goods will not be able to adjust easily to new Neo-liberal and global conditions.

We have also noted that Globalisation of world trade, especially with the forthcoming free trade Zones for Southern Africa (COMESA) and the rest of world (World Trade Organisation agreement) is a double edged sword. It gives Zambian businesses an opportunity to break into the world market, but at the same time it could lead to the total collapse of the Zambian companies should they fail to adjust and compete with foreign goods and services that come into the country tax free. Dijkstra (1996, p. 544) has argued that "increased competitiveness does not fall from heaven, the state must do more than liberalise the markets." He further goes on to argue that the Government "should promote technological development, human capacities, quality standards, and anti-monopoly legislation."

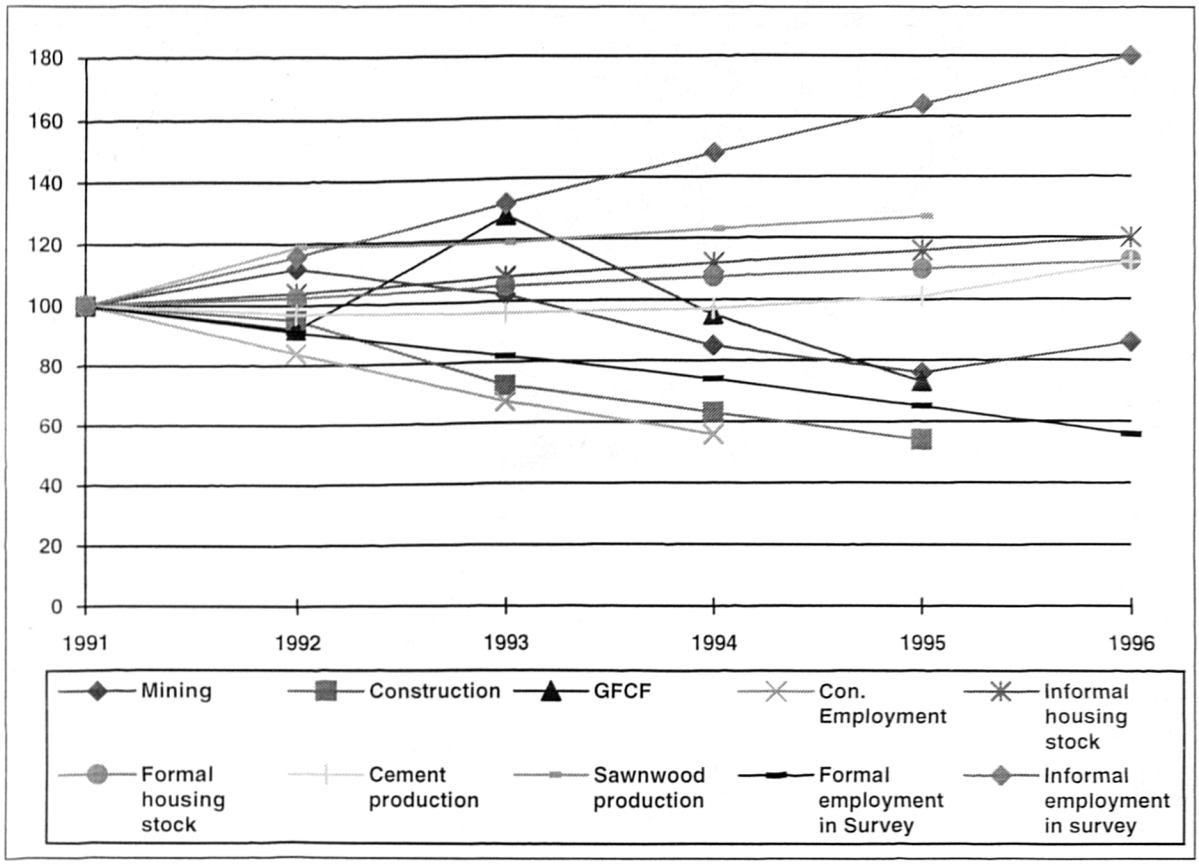
8.0.0 CHAPTER EIGHT: SUMMARY AND CONCLUSIONS

8.1.0. Introduction

In this final chapter, we now summarise the key points and draw conclusions on whether the application of the Structural Adjustment Programme and the Enabling Shelter Strategy have helped the construction industry increase production in response to post 1991 macro-economic changes in the country. In doing so, we intend to look at whether the Zambian construction industry has achieved the set aims and objectives as prescribed in both Neo-Liberal strategies i.e. increasing employment opportunities, construction exports, housing stock and finally aggregate GFCF in the country. To able to draw these conclusions, the study will summarise the situation in the construction industry prior to the application of the two aforementioned Neo-Liberal strategies and then assess their effects on the industry after 1991, when the strategies were applied. After assessing the post 1991 situation in light of changes brought about by SAP and the shelter enablement, the study will then draw its conclusions on whether the Neo-Liberal strategies have achieved their set aims and objectives as they pertain to the construction industry.

To be able to do that, the study will assess the various construction related indicators as summarised in Figure 8.1 and see whether they have gone in the direction in which the government through the two strategies wanted them to. For easy valuation, all the relevant construction industry indicators as showed in figure 8.1 and compiled from earlier chapters have been indexed to 1991=100. In this figure, therefore, a recording above 100 shows a positive growth rate and one below 100 shows a decline in that indicator in the period after the application of both SAP and the Enabling Shelter Strategy (from 1991 to 1996).

Fig. 8.1 Construction industry performance related indicators between 1991 and 1996



Source: Mashamba 1997, various tables and figures in past chapters

8.2.0 The Zambian construction industry in pre-adjustment era (before 1991)

To have a clear assessment of the Zambian construction industry in the post adjustment (1991) era and be able to draw objective conclusions as to whether the application of the two strategies under review have achieved their aims and objectives, it is important that we summarise pre-adjustment construction industry era. In this regard, it was clear in chapter three that whereas the Zambian construction industry was able to record high production output, largely due to huge public sector construction demand, that situation was not held for long. The construction industry grew rapidly between 1964 and 1974/5, but stagnated for some time in the late 1970s and then began to fall there after. This phenomenon was substantiated in figures 3.5 and 3.6 which showed corresponding raises and falls in construction employment figures and the share of GDP for the construction industry during the period referred above. Equally revealing was figure 3.4 which showed a stagnation in new conventional housing stock after 1971, although the informal housing stock grew modestly.

We were also able to see the close correlation between the performance of the copper industry and that of the construction industry. In particular, we saw in figure 3.2 and 3.6 that the raise in the activities of the construction industry between 1964 and 1974/5 and the fall that followed was following similar trends in the copper mining industry, on which the Zambian economy is so heavily dependent. With high income from copper sales, the government was able to invest in social services like schools and health institutions which on average increased in stock by more that 300% between 1964 and 1991 (see tables 3.4 and 3.5). Other economical and political factors like the declaration of UDI and the nationalisation of private property also resulted in huge investments in the road network, oil pipelines and local public industries. Consequently GDP rose from $1,500m at independence in 1964 and stagnated at $3,500m during the 1970s and 1980s, although raising population reduced the capita income from about $500 in 1964 to about $290 in 1991 (see figure 3.3). The dependence on imported raw materials, personnel and technology proved critical when the country's foreign exchange earnings were substantially reduced through low copper prices, reduced copper production and the concomitant raise in oil prices after the mid 1970s. The nationalisation of the economy and the anti-capitalist culture that was inculcated in the nation through Humanism, thus discouraged the private sector from effectively filling the void left by the public sector in sustaining and stimulating construction demand.

The construction industry thus grew rapidly from being a small sector in the national economy employing only 40,000 workers in 1964 to a peak record of 71,750 workers in 1974 before falling to 33,100 in 1991. The reduction in construction labour was, therefore, in direct response to reduced public sector construction demand in areas such as housing. Among the main reasons in falling housing stock was the insistence on high construction standards by the authorities, which pushed up building costs. For example, we saw how the cost of one public sector low cost house increased in cost from £320 to £800 within the first two years immediately after independence. Dependence on imported raw materials and final construction materials resulted in even higher construction costs, as a result of devaluation of the Kwacha and the mismanagement of the nationalised construction companies. For instance, we saw in figure 3.7 that aggregated prices for construction materials increased by over 2,500% between 1974 and 1991. Individual construction materials like cement, the main binding material in the construction industry increased by over 2,800% over the same period.

The above factors had the effect of reducing both public and private sector construction demand in the country as demonstrated in figures 3.4 and 3.6. The reduction in formal sector housing output, formal employment levels amidst a rapid national population increase of about 300% between 1964 and 1991, thus resulted in the emergence of a viable informal sector housing market and an accompanying informal construction sector.

8.3.0 The effects of SAP and the Enabling Shelter Strategy on the construction industry

Having looked at the key issues and problems in the Zambian construction industry prior to the application of the Structural Adjustment Programme and the Enabling Shelter Strategy, let us now summarise and make conclusions on the key measures introduced under the two strategies and their net effects on the industry. We should bear in mind that the application of SAP and the Enabling Shelter Strategy as they relate to our study was specifically applied with the intention of arresting the downward trend in the construction industry that started under the UNIP government prior to 1991. In summarising the various legislation and practices after 1991, we shall, therefore, be looking at whether these measures helped in arresting the decline in the construction industry and further helped it to grow.

8.3.1 Enabling legislation and practices

Beginning with chapter four, we discussed the change of government in October 1991 and the new development strategies of SAP and Enabling Shelter Strategy in an effort to reverse the downward trend in the macro-economy and especially the construction industry. The new government strategy was that of liberalising the Zambian economy and promoting private sector participation in both the overall economy and the construction industry. We recall from our literature review in chapter two that the strategy behind enacting enabling legislation is to encourage private local and international businesses to invest in the country by giving them business security and investment guarantees. Experiences from the late 1960's and 1970's, when the UNIP government enacted prohibitive private sector legislation, have testified to the need for enabling legislation and a hospitable business environment.

> There is no other choice than to liberalise the economy. Almost every centrally planned economy in the World has collapsed. The role of government is to govern and it is for the private sector to run business. Mark O'Donnell, Chairman: Zambia Association of Manufacturers (Aked, 1995, p. 22)

> We shall continue to provide an enabling environment...In the past the Government used to own companies that were manufacturing shoe laces, including those that were baking bread. That is not the role of Government. Government is supposed to legislate laws that will improve industry. F.T.J. Chiluba, President Republic of Zambia (Times of Zambia, 17/01/97).

In this respect, notwithstanding the high failure rate for companies in this industry, our study findings that, of the companies interviewed, 34% were set up during the first four and half years of implementing Neo-Liberal policies, is clear manifestation of Government's positive efforts in enacting enabling legislation. The proliferation of private sector construction companies amid closures of most public sector companies is indicative of recent Government efforts in creating an

enabling business environment. We also noted that there was a corresponding increase in the percentage of informal sector constructions during the same time, although the percentage increase was not very dramatic (see fig. 4.6). This is not to say, however, that the enabling environment had been fully attained, there were still areas that need improving or were yet to be implemented. For instance, we observed that the delayed privatisation of the Zambia Consolidated Copper Mines (ZCCM), which still contributes on average over 80% of the country's foreign earnings, with its massive socio-economic infrastructure of houses, schools, colleges, clinics, hospitals and so on, had not helped the construction industry. This was as a result of ZCCM not being able to investment in its socio-economic infrastructure, mainly because of the uncertainties in its future and the lack of internal capital for further investment.

Another enabling policy measure introduced by the Zambian government to kick-start the home-ownership scheme was the decision to sell council houses to sitting tenants. Although the government did not explicitly state that it wanted to promote the construction industry with this measure, it was clear from the high rate of satisfied respondents (54%) in the industry that this measure was giving most contractors some construction business, especially those in the house sub-market. When the same respondents were divided into their separate sub-sectors, i.e., supplier, consultants, manufactures, and contractors, the percentages of satisfied respondents was much higher for suppliers (70%) and contractors (69%), whereas for consultants (26%) and manufacturers (42%), it was much lower. Theses figures led us to believe that selling council houses had led to most new house owners making improvements and extensions, that benefited the local construction suppliers and contractors. It was no coincidence, either, that Kitwe the chief mining city that was leading the other cities in selling council houses, had the highest percentage of satisfied respondents (58%) than Lusaka (49%) and Ndola (53%), despite drastic falls in capital investment by the mining conglomerate. Not surprising, Kitwe was also the only city that recorded employment gains in the private sector.

Our study further found that the postulated gains in selling council houses were largely felt in the informal construction sector than in the formal sector, where nearly 80% of respondents were satisfied with the programme of selling council houses in relation to their construction business compared with 50% in the formal sector (refer to fig. 4.4). This finding was further validated in the site visits by the researcher, where it was observed that most of the house extensions, improvements and security walls were undertaken by informal sector contractors with their materials. Unfortunately, however, the under pricing and giving away of some of these council houses to sitting tenants meant that the councils did not get enough money from the sale of its houses to build more houses. The failure by Local Authorities to build more houses, therefore, contributed to declining levels of local construction demand and ultimately construction supply.

The only major public mass housing programme of the post 1991 era was unfortunately built with foreign aid and contractors, thus depriving the local industry of construction business.

8.3.1.1 Economic Liberalisation

By creating an enablement environment, especially in the construction market, the Zambian Government was hoping to encourage both local and international entrepreneurs to invest in the country's physical assets (GFCF) and thus stimulate the construction industry. In this regard, therefore, economic liberalisation was a step in the right direction. Although we observed that there had been some foreign investment coming into the country (se table 4.4), as a result of some incentives given to foreign investors, little had gone into stimulating the declining construction demand or supply. It was not surprising to note that of this foreign investment, only 3% went directly into the construction industry. Although figure 4.1 shows that private sector consumption increased by 55%, and public sector consumption reduced by 25% between 1991 and 1995, total GFCF fell unabated during the Adjustment era by 38%. These statistics mean, therefore, that very little in terms of private spending was going into the country's GFCF.

Although Zambia scored highly with the international community, especially with the World Bank, in her efforts to liberalise the economy through its privatisation programme, 65% of the respondents were of the view that this programme had not benefited their businesses. This high unhappy response rate could be attributed to the fact that most of the companies that were privatised had tended to concentrate on internal restructuring to maximise efficiency in the initial stages, and thus invested very little in their fixed assets like buildings. It is however, hoped that once this internal restructuring and money saving exercise is over, most of these companies will begin to invest in their fixed assets, and the benefits will thus filter through to the construction industry.

8.3.1.2 Value Added tax (VAT)

Another set of enabling legislation introduced by the Zambian government was the introduction of VAT set at 20% in July 1995. The advantage in having VAT over the old sales and excise tax is that it allowed for the offsetting of tax paid on construction inputs against tax due on sales. Zambia's neighbours and main competitors; Zimbabwe and South Africa on the other hand, have theirs set at an average of 13%. Although the high VAT rate in Zambia in comparison with its neighbours was alleged by the Zambia Association of Chambers of Commerce and Industry (ZACCI) to be responsible for making local goods and services more expensive than imported ones, we noted that it enabled the informal sector to buy cheaply from outside the country and resale locally. It remains to be seen, however, if the recent reduction in VAT from 20% to 17.5%

(effectively from 1st. of July 1997) will reverse this trend and reduce informal trading in small construction materials and other items.

It also came out very clearly that the method of collecting VAT using the accrual accounting method by the Zambia Revenue Authority was not only unfair to most contractors and suppliers of counteraction materials, but also led to bankruptcy to some of the affected companies. We therefore, conclude that, to remedy the situation, the Zambia Revenue Authority should be made to use cash accounting as opposed to accrual accounting when demanding VAT receipts, otherwise companies selling on credit and to ZCCM will continue to be penalised.

8.3.1.3 Treasury Bills

Whereas the introduction of Treasury Bills as a short and medium term source of Government finance had the positive effect of reducing inflation, we found the use of this money for recurrent expenditure counter-productivity. Not only was the use of Treasury Bills' receipts to finance emoluments counter productive in the fight against inflation, it also deprived the construction industry of the necessary capital to increase production and other industries the money to invest in GFCF. We further observed that although the introduction of Treasury Bills presented the government with an opportunity to increase its revenue base from which to finance its capital programme, given its reduced share of income from mineral sales, the government failed utilise the opportunity. The government could have gone further and introduced long term Treasury Bills (appropriately called Bonds) with similar high rates to Treasury Bills, tradable on the Lusaka Stock Exchange, to finance capital programmes, thereby stimulating construction demand.

In the same vein, we noted the use of privatisation funds to pay retrenchment-related payments and the alleged deviation of the same funds and the fuel levy[1] to other recurrent expenditure-related liabilities by the Government. To eliminate any future abuse of these funds, it was proposed that Government establish a special account with either the Bank of Zambia or any other Commercial Bank, separate from other general Government accounts, where such money will be deposited and used only when sanctioned by the appropriate independent boards.

8.3.2 Construction finance

In chapter five, it was observed that construction finance continues to be a source of worry in implementing a viable construction supply side-market. We will recall that the absence of a well developed capital market, largely due to the socialist-based policies of the past UNIP government, had resulted in low capital outflows to the construction industry. With the introduction of SAP

[1] The Deputy Minister of Works and Supply estimates that a total of K4bn ($3.3m) has been deviated to other government programmes and projects ((Zambia Daily Mail, 30/01/97; Sunday Mail, 02/02/1997). ZACCI investigations have, however, put the figure at K5.3bn (Profit, Vol. 5, No. 2 July 1996, p. 7)

and the re-establishment of relations with the International Financial Institutions, we saw stability in the financial market, although we observed that most private sector finance was not going into the productive sectors like the construction industry. The introduction of short term and high yielding securities such as the Treasury Bills and the lucrative fixed call deposits, had resulted in most capital been tied up in these securities. This did not come as a complete surprise, considering the long period needed to recoup one's investment in the construction industry as compared to other industries or high street securities. We saw for example that, in Nigeria, the effects of SAP led local investors to invest their capital in taxis and petty trading rather than investing in shelter (CASSAD, 1991).

It was also observed that, although the introduction of the Lusaka Stock Exchange (LuSE) opened new sources of capital for most under-capitalised firms, only eight firms were trading their shares on the LuSE. Of these eight companies, only Chilanga plc is a construction based company. Expectations are, however, high that the introduction of a corporate tax reduction in the 1996 budget from 35% to 30% for companies listed on LuSE, will attract more companies to list their shares. It is, nevertheless, too early to assess the impact of this tax reduction on the construction industry. It will be necessary, however, to evaluate the impact of the 1996 corporate tax reduction on LuSE volume of trade in the next two or three years, and take appropriate corrective action. The low number of construction based companies and real estates companies leads to the conclusion that there is need to start a serious marketing campaign of LuSE and its tax incentives and benefits. Our conclusion is that the marketing campaign should be targeted at both small and large companies/investors involved in the construction industry both locally and outside the Zambia.

In this respect, we saw no reason why the National Housing Authority, other construction based companies, or any of the local Authorities, could not sell their shares on the LuSE and use the extra capital to increase their production capacities and construction demand power. The law already allows for this. For instance, section 6 of the Local Government Act number 22 of 1991 states that "every council is a body corporate with perpetual succession and a common seal capable of suing and being sued in its corporate name and with power subject to the provisions of the act..." The councils could use this legislation to sell bonds on the stock exchange and use the proceeds to finance its roads, water and housing projects.

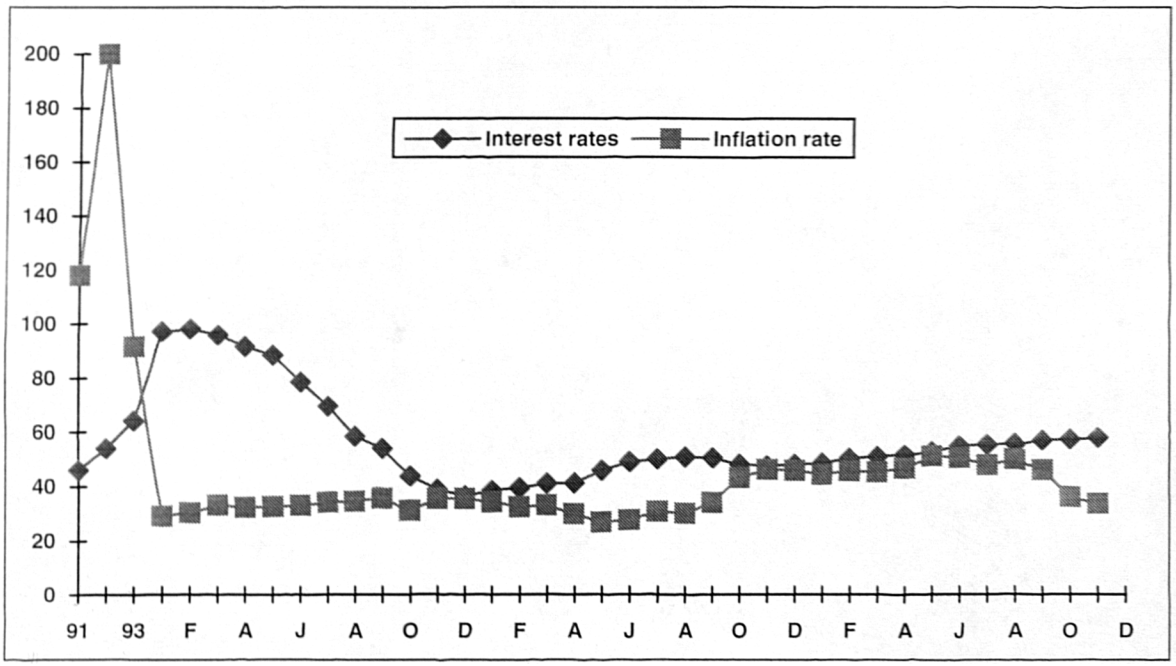
8.3.2.1 Liberalised interest rates

We saw how a combination of very high interest (base) rates from commercial banks and stringent western society style securities contributed to discouraging a number of entrepreneurs from obtaining loans from commercial banks. Given, however, that in a liberalised economy

interest rates are mainly determined by market forces, there is little that the Government could have done to reduce these high interest rates. We observed, however, that reduced internal Government borrowing through Treasury Bills could have assisted in reducing commercial banks' base rates. For example we found that in 1996 alone the government paid a total of K92bn on interest rates and yet spent only K32bn on capital expenditure. High internal borrowing by the government obviously increased local commercial bank rates, which in turn discouraged more people/firms from borrowing to promote their business, increase or improve their physical stock and for mortgage lending purposes.

We further observed that, although interest (base) rates had reduced to about 50% in the last few months of the study period, from their peak rates of about 100%, they still remain quite high for most businesses and individuals, considering that inflation rates were lower (see fig. 8.2). This meant that it was too costly to borrow in the long run, although the situation could have been different had inflation rates stayed equally high or higher. Surprising, however, 31% (almost a third) of the respondents were of the view that liberalised interest rates had helped their businesses one way or the other, 52% had contrary views and the remaining 17% were not sure. The only possible explanation in the high number of respondents with liberalised interest rates was that these were companies with bank account accounts in credit or had bought treasury bills, and were therefore, earning high sums of money from high interest rates.

Fig. 8.2 Movement of Commercial bank base rates & inflation between 1991 and 1996



Source: Profit and Government Valuation Department Quarterly Bulletins

8.3.2.2 The impact of inflation on construction finance

The adverse effects of high inflation on national economies is well noted by the protagonists of both the Structural Adjustment Programme and the Enabling Shelter Strategy, such that both strategies carry in-built measures of fighting inflation. In Zambia, the 'Cash Budget' strategy was one way of fighting inflation. The failure to substantially reduce public sector pay and the very high percentage of emoluments as a percentage of total Government budget (on average 75%) meant that continuous public sector salary increases continued to fuel inflation. Relatively high rates of inflation then running at about 50% also meant that construction projects which sometimes run for 2-3 years, had their initial budgets doubled or tripled whilst still under construction. For instance, figure 7.1 shows that the average nominal increase in the price of construction materials rose by as much as 2,500% for some materials like asbestos roofing sheets between 1991 and 1996, although aggregates had a negative gain of 11% in real terms within the same period. In this respect, the 7% completion failure rate for construction projects recorded in our survey was a remarkable achievement for the industry and the economy. Nevertheless, this financial environment had a tendency to scare away potential investors, who readily invested their capital in high yield and less risky businesses, like Treasury Bills or ready-built real estate.

8.3.2.3 Mortgage lending and the shelter sub-market

Although the government liberalised the Building Society market, the survey recorded only one privately owned building society opening in competition with the state owned one: the Zambia National Building Society (ZNBS). The high mortgage rates running at over 50% were found to be largely to blame for the lack of movement in this market. It was envisaged, however, that the establishment of more Building Societies will lead to competition and, eventually, in reducing mortgage rates. Nevertheless, the mortgage rate reduction was not expected to be sufficiently low as to attract more households to apply for mortgages, given the prevailing high mortgage rates.

For example, in Zimbabwe a slight reduction in the mortgage rates in 1996 resulted in a huge housing demand, increases in house prices and a critical housing shortage in Harare (Pan African, 28/01/97). A similar reduction in mortgage rates in Zambia[2], would have had the same effects on the housing market, thereby stimulating the housing market and the construction industry. Given the above example from Zimbabwe, it was difficult to understand Government's decision in 1996 to subject building society bonds to taxation. Our conclusion in this respect, is that this decision does not help in bringing about affordable mortgage rates, on the contrary it makes building societies less attractive than commercial banks in attracting deposits. It was further noted in chapter five that Building societies and commercial banks play an important role in mobilising

[2]In Zambia we reckon the reduction would have to be more substantial, considering that Zimbabwe has a far smaller rate of inflation, interest rates and a stronger economy. See table 7.8 for Zimbabwe's economic profile

small deposits from small-savers and transferring this aggregate capital to the productive sector of the economy. The closure, therefore, of three indigenous banks no doubt eroded depositor confidence in the Zambian financial market.

8.3.2.4 Donor funding and the construction market

Events of the last few years indicate that Zambians had not yet learnt the lessons of 1987. when at the time the country was heavily dependent on the donor community and when, aid was cut off, this led to the collapse of the economy and eventually of the UNIP Government. The observation in post 1991 budgets that over 75% of Zambia's capital expenditure budget was donor funded, therefore, came as a very disappointing development, especially that Zambia was already at odds with the donor community, who once again cut off their aid package.[3] It is fair to say, however, that donor funding and net investment income was not only reduced in Zambia but in the whole of the Sub-Saharan African region (United Nations, 1994a, p.25). Given the low financial resources of the Zambian Government, there was a very clear need for the Government to encourage more private international capital inflows, rather than Government-to-Government Aid Programmes which are so vulnerable to domestic politics.

8.3.3 Labour and training

The need for a well educated and trained construction labour force in attaining increased construction supply and a sustained national economy were well highlighted in chapter six. The relation between a well trained labour force and high productivity was supported with empirical examples from the Far Eastern Asian countries (Tigers of Asia). Despite this undisputed linkage and the theoretical support for education and training under SAP and shelter enablement, in reality we found that the government continues to reduce her budgetary allocation to this sector. This finding was in conformity with experiences in other Sub-Saharan African countries under going SAP, where it was found that education and health budgets tended to be easily sacrificed in favour of other sectors (United Nations, 1994a, 21). It was also observed that even the little resources allocated to education tended unfortunately to favour university education, which only benefited a handful of citizens, let alone the targeted vulnerable groups. Figures 6.5 and 6.6 showed, for example, that very few women benefited from the male-biased University system and subsequently in the Zambian construction labour market.

8.3.3.1 Employment creation and labour intensive construction methods

Contrary to postulations in the Structural Adjustment Programme and the Enabling Shelter Strategy, that minimum government intervention in the construction industry and a liberalised economy would promote job opportunities in the (construction) private sector, there was little

[3]The 1997 budget has, however, proposed to mobilise 75% of the K1.4 trillion ($1.2bn) budget from local resources.

evidence of this. Only the City of Kitwe registered an increase of 51% in the private sector job market, whereas Ndola and Lusaka recorded negative growth of 30% and 68% respectively. It is important, however, to note that the net loss of jobs in the private sector could largely be attributed to the 41% job increases in the government construction (building and roads) departments, which resulted in the government doing its construction projects in-house.

Given the massive cuts in public sector investment in capital programmes, it did not come as a complete surprise that overall, the construction industry lost 32% of its total labour force between 1991 and 1996. The withdraw of some donor funding for capital programme support, prevailing high interest and mortgage rates only made matters worse in the construction labour market. The only surprise in the construction labour market was in the 41% increase in government workers, when both the Structural Adjustment Programme and the Enabling Shelter Strategy advocate for the complete reverse. The picture was somewhat different when the industry was broken down into formal and informal sectors. When this was done, it was found that the informal sector actually recorded a 80% labour increase, whilst the formal sector reduced its labour force by as much as 44% (See table 6.3).

The use of labour intensive construction methods, especially by the local councils in road mending, drainage digging and grass cutting, however, helped in creating some job opportunities, although on casual basis. The choice between labour or capital intensive construction methods, nevertheless, seem to lie mostly on the need to avoid expensive machinery and spares, rather than real choice. This was particularly true with small scale and informal construction companies who could not afford the money for imported machinery, spares and fuel to operate them. The above situation could, however, change if Government was to grant the wishes of the Zambia Association of Chambers for Commerce and Industry (ZACCI) and the Zambia Association of Manufacturers (ZAM), to reduce or remove customs duty on imported machinery.

8.3.3.2 Informal sector construction labour market

Amidst the overall failing construction output in the country, we saw how it was the formal sector that was declining, whilst the informal sector was continuously growing (table 6.3). Although we noted the proliferation of the informal construction sector, it was disappointing to note that women were largely under-represented even in sectors that did not require much physical strength and given their traditional role in house building. Our other finding was the failure by Government and its agencies to tax this growing sector, and reduce the tax burden on the falling numbers of formal sector companies and their workers. The reluctance in setting a tax system for this sector was based on government's fears not to discourage this sector with a high and cumbersome tax system, although we noted that a small flat rate for all small informal

construction companies could have been a starting point. Under our proposal we recommended that the Government's own contractor classification scales with the Building Department be used to determine the rate to be paid by all informal sector construction companies. Customers would also be required to assist by demanding a tax certificate before awarding these informal contractors any construction commissions.

8.3.3.3 Productivity and training

We already alluded to the theoretical viewpoint and the practical experiences of the Far Eastern countries that better training for workers leads to increased productivity. In the Zambian construction industry, however, only 52% and 35% of the construction companies surveyed had formal and informal training schemes respectively (see tables 6.6 and 6.8). Whereas it was easy to understand the relatively low percentage of firms with formal training schemes, given the high cost of such training, the even lower rate for informal training could not be justified. It was proposed, therefore, that one way of encouraging training and yet keep the costs down was by introducing more in-service training schemes either through short breaks from work or through evening classes. Although some firms especially informal sector ones were already using informal training methods the levels involved were small.

8.3.3.4 Informal training

With Government having to reduce its education bill under these austerity economic measures, it was quite clear that public and formal education and training could no longer be relied on as in the past. Nevertheless, we could not ignore experiences through studies from the Far Eastern countries that showed that education and increased productivity are closely related. Our field data, nevertheless revealed that up to 81% of small scale and a further 68% of (medium and large) private construction firms had no training programmes at formal construction training institutions. To remedy the above situation, the government was already conducting "open air demonstration centres" where the unemployed were been given various training skills among which were construction skills. Given government's intention to reduce its role in education and the economy it was, therefore, surprising to find that these open air demonstration centres were run solely by the government without private sector or community participation. There was no deliberate policy to target the vulnerable groups like women and the unemployed youth, contrary to government policy and pronouncements.

8.3.4 Construction supply

Warren (1993, p. 197) summarised supply-side economics by saying that it aims at increasing aggregate production supply in the economy by eliminating structural rigidities in the country's socio-economic and political environment. It was also made clear in Chapter two, that increased

(construction) supply is increasingly associated and linked to environmental sustainability. Unfortunately however, as the cases of the manually crushed stones and increased timber export demonstrated, it is not always easy to reduce production costs, increase production and yet attain environment sustainability (see also Wells, 1993, p.89).

Unfortunately, rather than find a more practical way of sustaining long term (environmentally friendly) construction supply, the Zambian government chose to legislate and control the export of timber and curb stone crushing. We observed that this government reaction did help in ensuring that present or future timber or aggregate production did not damage the environment nor restore the already damaged environment/ sites. A position which could have been achieved had government imposed a minimal environment tax on all affected producers for use in cleaning the affected sites and for future sustainable construction production.

8.3.4.1 Improving the quantity of construction supply

Table 7.6 in chapter 7 clearly showed that in the post SAP era obtaining most basic construction materials was no longer a problem, compared to the critical construction materials shortages and a flourishing black market of the Second Republic (Fewings, 1991, p. 38-39; Mashamba, 1996). The only unfortunate phenomenon with the post adjustment era was that some of the materials were still being imported into the country, thereby denying the country the postulated high multiplier effects in the local economy (Moavenzaden, 1987; Klaassen *et al*, 1987; ILO[UNCHS], 1995). But as Wells (1995, p73) has rightly argued, in developing countries such as Zambia, "the supply of building materials at affordable prices has long been recognised as a prerequisite for improved housing conditions," that the question on where and how these materials are obtained are not vigorously pursued. It was also noted that the only large scale housing scheme to be implemented in the last five was the construction of the 118 low cost housing units by the Chinese Government in Ndola.

The roads and water rehabilitation exercises were some of the programmes completely dominated by foreign based contractors. Here again, we failed to see how the postulated high multiplier effects of the construction industry could filter to the local economy, when large scale projects were dominated by foreign contractors, using imported materials. Given, however, that most of these foreign contractor-dominated projects and programmes were donor funded, and in some cases there were no experienced and appropriate Zambian companies to carry out these contracts, there was little that the Zambian government or the industry could do.

8.3.4.2 Improving construction supply quality

In tables 7.4 and 7.5 we saw that the main reason why imports continue to dominate the Zambian construction market is that Zambia does not produce all its construction materials and that Zambian goods are viewed as being inferior to and yet more expensive than imported ones. We therefore, observed that, there was no other way of promoting Zambian construction goods and services, locally and for exports, than by improving quality. Although we did find some very good locally produced construction goods, there were unfortunately some goods especially in the informal sector that were poorly made (see also plate 7.4). This is not to suggest that all goods and services in the informal sector were particularly poor or below standard, on the contrary some informal sector goods and services were very good such that those in the formal sector did business with this sector.

The absence on an effective, well funded and staffed local Bureau of Standards to grade the various construction materials did not help matters either. The Zambia Bureau of Standards could have helped by grading Zambian-produced goods appropriately, so that customers knew exactly the quality of goods they are buying. This would have ensured that households on low income, or projects that did not require very high quality construction materials, bought the low standard goods and those with high incomes and projects preferring high quality construction goods bought accordingly. The prevailing situation where most construction goods did not carry a standard code did not help the customers nor the industry, because some of the Zambian construction materials which were of good quality ended up being regarded as poor quality simply because were made in Zambia.

We also found that, although a number of good construction-related research projects had been commissioned by various institutions, their findings/results failed to reach the intended targets. We found that part of the problem in disseminating construction research findings was due to duplication of roles and research work by various institutions, which only meant less money and effort in disseminating their findings. We thus conclude that this situation could have been avoided had the Zambian government or industry established one body to co-ordinate all construction-related research and its dissemination nation-wide.

8.3.4.3 Increasing construction exports

In chapter two, we saw how the Structural Adjustment Programme set about targeting exports, especially non traditional exports from the Third World, as the only way of reducing their indebtedness. The Enabling Shelter Strategy on the other hand emphasises increased exports of construction goods and services. Unfortunately, our research did not find overwhelming evidence pointing to increased construction exports, although there was very encouraging signs from a few

companies like Chilanga Cement plc, Turnall Asbestos Products plc and the timber sub-market. But as figure 8.1 will confirm, these exports were recorded against a background of reduced local construction output, suggesting that the excess local output was being exported. This fact is further demonstrated in appendix III which is a simple correlation table for all the construction indicators, which shows a high negative correlation rate for exported materials and the level of local construction output i.e, reduced local construction output was inducing more construction exports.

What was even more discouraging, however, was the very high percentage rate of companies (99%) that had no immediate intentions of going into the export market. This was despite the consolidation of the Eastern and Southern African market through SADC and COMESA. This was also despite the fact that the region's construction market potential was further strengthened by the end of civil wars in Mozambique and Angola and the end of apartheid in South Africa which resulted in massive reconstruction taking place in these countries.

8.4.0 Achievement and failures in the Zambian construction industry after 1991

Undoubtedly, the greatest achievement in applying the Structural Adjustment Programme and Enabling Shelter Strategy on the Zambian construction industry have been in the ways in which they have removed bureaucratic controls in business practices and transactions. The removal of foreign exchange controls, easing of entry into the construction business environment, especially the entry of the informal construction sector thus resulted in more construction firms than ever before. This meant that retrenched public sector workers who would otherwise have been unemployed, were able to found work or start their own business in the thriving private and mainly informal construction sector. Although we could point to such positive gains above, it also very clear that reduced construction demand by the government and other public sector institutions in the last five years, has resulted in an overall shrinking construction industry (see table 7.1). In short, therefore, the greatest failure of the two aforementioned strategies was in their failure to substantially increase national construction output, especially in the areas like formal housing stock and the formal construction labour market.

The acceptance of capitalist practices also meant that foreign firms were more welcome in the economy without the fear of their firms being nationalised as was the case before. The anti-inflationary measures of SAP are some of the positive attributes of this programme, in that they managed within limits to reduce inflation and stabilise the foreign exchange rates. Although stabilised foreign exchange rates were late in coming, when they were finally achieved they allowed investors to plan ahead and minimum Kwacha/Dollar fluctuation during construction time.

Trade liberalisation also ensured that construction firms with the production and quality capacity were able to export their goods and earn the country some foreign exchange. The only draw back was that these construction exports were only able to increase in the wake of reduced local demand. Nevertheless, the achievements of Chilanga Cement plc, Turnall Asbestos Products and the Timber industry, in earning the country huge amounts of foreign exchange have demonstrated the export potential of the Zambian construction industry in producing construction materials acceptable at international level.

In appendix IV, we also see a strong correlation between construction and copper output of +0.808 as measured in GDP. This helps to explain the low construction output in the country in the wake of reduced copper production by the Zambia Consolidated Copper Mines and low copper prices. We also noted that the reduced copper production and consequently low construction output was partly because of the delays in privatising the ZCCM, which urgently needed new capital injection to replace and improve it capital stock.

It was also clear in our study that, in most instances, the Zambian Government lacked the political will to carry out in full some of the adjustment and enablement conditionalities. For example, the failure by Government to effectively reduce the public service and, therefore, the public service emolument bill was attributed to the lack of political will on the part of Government. Although the Government later allocated K20bn ($16.7m) in the 1997 budget for the Public Sector Reform Programme, based on past experience, it was doubtful whether the government could finally gather enough political will power to carry out this measure (see also United Nations, 1994a, p. 21).

The xenophobia towards foreigners was another area which could have discouraged foreign investments in Zambia and further demonstrated government's lack of will power to effectively deal with the issue. This lack of political will was clearly manifested in the Livingstone racially motivated riots in which billions of Kwacha worth of Asian property was destroyed, and statements by grassroots politicians asking councils not to sell council houses to "foreigners".

To encourage more international private capital, which little or no bearing on domestic party politics, it would have been imperative for the Government to have privatised and allowed more private sector participation in traditionally dominated public sectors like education, health, and public utilities. For example, rather than planning on building more publicly funded universities, hospitals and hydro-electricity power stations, the Government should have encouraged (given necessary incentives and investment securities) the private sector to do so. For a start all the schools, colleges and hospitals that were nationalised from the missionary and other religious

orders under the UNIP government should have been returned. Such a move would not only have encouraged the private sector back into these sectors, but would also have relieved the Government of some of its huge education and health budgets.

With copper, Zambia's main export earner not thriving, on the London Metal Exchange, we took the view that the construction export market is an area of great concern, needing urgent Government attention. We conclude, therefore, that the omission by the Government to incorporate construction marketing into the already existing Export Board of Zambia (EBZ) and Trade Missions in the foreign service, for purposes of promoting and selling Zambian construction goods and services was a very serious mistake. This obviously, did not help in marketing the Zambian construction industry abroad, especially within the COMESA region, the way the tourist industry has been marketed. It could also be argued that Zambia, with a population of 9 million people and per capita GNP of $290, is too small to be a self sustaining market and should, therefore, work towards making a successful regional and international market.

8.5.0 Recommendations for future research

Being the first research of this kind in Zambia, our study looked at the overall effects of the Structural Adjustment Programme and the Enabling Shelter Strategy on the construction industry. As such it was not possible to do an in-depth research and analysis on each and every aspect of the industry. It now remains for future research to start breaking the industry and the two Neo-liberal strategies into smaller sectors, for more in-depth analysis. For example, in future it would be useful to take each of our four chapters, from chapters four to eight and carry out detailed study analysis of the issues raised here at regular time periods, say every five years. The results could then be used to make further improvements to the Zambian construction industry and for the continuous development and refinement of the two Neo-Liberal development theories of structural adjustment and shelter enablement.

For example, it will be important to monitor the performance of the construction industry in the years to come and regression the various variables to see their interrelationship. For now, five years presents only five yearly observations which was far too small observations to be able to accurately regress the variables. For instance, an attempt to regress the variables in figure 8.1 using only the first five years of the strategies was able to give us the regression formula below, which when tested was not very accurate, but quite close for lack of large data base of yearly observations.

Const. output. = 592 + 1.05 Sawnwood + 2.23 Cement - 0.107 Employment. - 8.10 For.housing

Continued observations and regression of construction variables for another five years should be able to establish a very accurate formula for predicating construction performance in Zambia.

Where:
Const. output= Construction output (as measured at 1991=100)
Sawnwood= The amount of sawnwood production (as measured at 1991=100)
Cement= Total cement production by Chilanga Cement (as measured at 1991=100)
Employment.= Total formal construction employment in Zambia (as measured at 1991=100)
For.housing= Total number of formal housing stock in Zambia (as measured at 1991=100)
Inf.hou= Total informal housing stock in Zambia (as measured at 1991=100)
MTB > Regress C4 5 c1 c2 c6 c7 c8.
* Inf.hou is highly correlated with other X variables
* Inf.hou has been removed from the equation

* NOTE * Formal housing is highly correlated with other predictor variables

Predictor	Coef	Stdev	t-ratio	p
Constant	592.4	246.0	2.41	0.251
Sawnwood	1.0535	0.3669	2.87	0.213
Cement	2.226	1.175	1.90	0.309
Employm.	-0.1071	0.5578	-0.19	0.879
For.hou	-8.099	3.201	-2.53	0.240

s = 2.624 R-sq = 99.7% R-sq(adj) = 98.4%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	4	2194.45	548.61	79.67	0.084
Error	1	6.89	6.89		
Total	5	2201.33			

SOURCE	DF	SEQ SS
Sawnwood	1	1563.16
Cement	1	183.79
Employm.	1	403.41
For.hou	1	44.09

Unusual Observations

Obs.	Sawnwood	Cons.	Fit	Stdev.Fit	Residual	St.Resid
1	100	100.00	99.79	2.62	0.21	1.00 X
5	127	54.00	54.19	2.62	-0.19	-1.00 X
6	127	50.00	50.17	2.62	-0.17	-1.00 X

X denotes an obs. whose X value gives it large influence.

BIBLIOGRAPHY

AARON H. J. (1972) "Shelter and subsidies; who benefits from federal housing policies?", Washington DC.: The Brookings Institution.

ABDALLAH A. (1993) "Priorities for financing housing development", *Proceedings of the symposium on shelter markets*, held on the 27th of May 1992, Nairobi-Kenya, pp. 4-6.

ADAM C. (1995) "Fiscal Adjustment, Financial liberalisation, and the Dynamics of Inflation: Some Evidence from Zambia", *World Development*, Vol. 23, No. 5, pp. 735-750.

ADJEDEJI A., FERIBA O. and BUGEMBE P. (1991) *The challenge of economic recovery and development*, London: Frank Cass and Company Limited.

AGRAWAL A.N. and KUNDAN LAL (1994) *Economics of Development and Planning*, New Delhi: Vikas Publishing House Pvt Limited.

AKED L. (1995a) "Still a long way to go", *Profit*, Vol. 4 No. 7, December, pp. 22-23.

AKED L. (1995b) "Quality control and the export market", *Profit*, Vol. 4, No. 6, November, pp. 22-24.

AKED L. (1996) "Managing for quality", *Profit*, Vol. 4, No. 10, March, pp. 31-32.

AKED L. (1996) "Ready for the export drive", *Profit*, Vol. 5, No. 2, July, pp. 10-11.

ALLAN G. and SKINNER C. (1991) *Handbook for research students in the social sciences*, New York: The Falmer Press.

ALLEN J. and HAMNETT C. (1991) *Housing and labour markets; building the connections*, London: Unwin Hyman Limited.

AMIN S. (1976) *Unequal development: an essay on the social formation of peripheral capitalism*, Hassocks, Eng.: The Harvester Press.

ANDREASEN J. (1996) "Urban tenants and community involvement", *Habitat International*, Vol. 20, No. 3, pp. 359-365.

ANGEL S., MAYO S.K. and STEPHENS W.L. Jr. (1992) "The housing indicators program: A report on progress and plans for the future", [UNCHS(Habitat) and the World Bank]. Paper submitted to the International Conference on Housing Indicators in Europe Delft, the Netherlands, Nov. 2-3.

BAKEN R.J. and VAN DER LINDEN J. (1993) "Getting the incentives right; A critique of current World Bank thinking on low income housing delivery in Third World cities", *Third World Planning Review*, Vol. 15, No. 1, pp. 1-21.

BAKER T.L. (1994) *Doing social research*, New York: MacGraw-Hill Inc.

BAMBERGER M., SANYAL B., and VALVERDE N. (1982) "Evaluation of sites and services projects: The experience from Lusaka, Zambia", Washington DC.; The World Bank.

BANGURA Y. and BECKMAN B. (1993) "African workers and structural Adjustment: A Nigerian case-study", In: OLUKOSHI A. O.(ed.), The politics of Structural Adjustment in Nigeria, Portsmouth, N.H.: Heinemann Education Books, pp. 75-96.

BATES R. H. (1994) "The impulse to reform in Africa", In: J. A. Widner (ed..), Economic change and political liberalization in Sub-Saharan Africa, Baltimore: The Johns Hopkins University Press, pp. 29-46.

BECKER H.S. (1992) "Cases, causes, conjunctures, stores and imagery", In: Charles C. R. and Howard S.B (eds.). What is a case? Cambridge University Press, pp. 205-216.

BELL J. (1993) *Doing your research project: A guide for first time researchers in education and social science*, Buckingham: Open University Press.

BERG R. J . and WHITAKER J. S. (1986) *Strategies for African development,* Berkeley: University of California Press.

BERNSTEIN R. J. (1976) *The restructuring of social and political theory*, Oxford: Basil Blackwell.

BERRY B. J. L. (1973) *The human consequences of urbanisation: Divergent paths in the urban experience of the twentieth century*, London: Macmillan Press.

BEVERIDGE A. A. and OBERSCHALL A. (1979) *African businessmen and development in Zambia*, Princeton, N.J.: Princeton University Press.

BIRLELAND Ø. (1968) "Building regulations and building cost", In Building cost and quality, International Council for Building Research, Studies and Documentation, pp. 127-133.

BOSTOCK R.M. (1971) "The Transport Sector", In: Charles Elliot, Constraints on the economic development of Zambia, Oxford University Press, pp. 323-376.

BOWLEY M. (1966) *The British building industry: Four studies in response and resistance to change*, Cambridge University Press.

BRATTON M. (1994) "Economic crisis and political realignment in Zambia", In: J.A. Widner (ed.), Economic change and political liberalisation in Sub-Saharan Africa, Baltimore: The Johns Hopkins University Press, pp. 101-128.

Brech E.F.L. (1971) *Construction management in principle and practice*, London: Longman group Limited

BRISCOE G. (1993) *The economics of the construction industry*, London: B.T. Batsford.

BROCK C. and MOYO M. (1993) "School Leaves Construction co-operatives of Bulawayo", *Urban Perspectives,* Volume 3, Number 2, Feb., pp. 4-7.

BRYMAN A. (1988) *Quantity and quality in social research*, London: Unwin hyman Limited.

BUILDER, The (1962) *The building industry...1962 onward: A survey*, London: Lea and Company.

BULL T. and SIMPSON D. (1995) "The collapse of the Sardanis empire", *Profit* (Zambia Business journal), June, pp. 15-20.

BURDETTE M. M. (1988) *Zambia: Between two Worlds*, Boulder, Colo.: Westview Press, Inc.

BURGESS R. (1977) "Self-help housing: A new imperialist strategy?", A Critic of the Turner School, *Antipode* 9, pp. 50-59.

BURGESS R., CARMONA M. and KOLSTEE Th. (1994) "Contemporary urban strategies and urban design in developing countries- A critic review", Faculty of Architecture; DELFT university of technology.

CAMBRIDGE ARCHITECTURAL RESEARCH (1993) "Housing and the economy", *Urban perspectives*, volume 3, Number 2, Feb., pp. 13-17.

CAMPBELL B. K and LOXLEY J. [eds] (1989) Structural adjustment in Africa, Basingstone: The Macmillan Press Limited.

CAMPBELL H. and STEIN H. (1992) *Tanzania and the IMF: The dynamics of liberation*, Boulder: Westview Press.

CENTRE FOR AFRICAN SETTLEMENT STUDIES AND DEVELOPMENT [CASSAD] (1991) "The impact of structural adjustment programme (SAP) on housing and development in Nigeria", Fredrich Ebert Foundation (Lagos) and CASSAD.

CHAKWE K.M.P. (1983) "Rational analysis of the traditional and conventional building materials and techniques in house construction- with particular reference to Zambia", Unpublished PhD. thesis, University of Newcastle upon Tyne.

CHILUFYA S. F. (1993) "Trends in the building industry and the built environment in Zambia", A paper presented at the Shelter-Afrique workshop on production and utilisation of local building materials. 20-21 May, Lusaka, Zambia.

CHOGUILL C. L. (1996) "Towards Sustainability of human Settlements", *Habitat international*, Vol. 20, No. 3, pp. v-viii.

CHOGUILL C. L. (1996) "Ten steps to Sustainable infrastructure", *Habitat international*, Vol. 20, No. 3, pp. 389-404.

CHOGUIL C. L. and CHOGUIL M. B. G. (1996) "Towards sustainable infrastructure for low-income communities", In Cedric Pugh, Sustanability, the Environment and Urbanisation, London: Earthscan, pp. 83-102.

CHRISTIE C. (1971) "The construction sector", In: Charles Elliott, Constraints on the economic development of Zambia, Oxford University Press, pp. 337-396.

CICOUREL A. V. (1964) "Method and measurement in sociology", New York: The Free Press of Glencoe.

CITY OF SOWETO [City Engineer's Department] (1992) "Contractor development in labour-based construction", The City of Soweto: The Contractor Development Team.

CLARKE L. (1993) "Housing Finance in the Incipient Capital Markets: Problems and Prospects", Proceedings of the Symposium on Capital Markets and Shelter Finance Linkages in Africa, Lusaka-Zambia, 26th May, pp. 28-32.

COMMONWEALTH SECRETARIAT (1989) *Engendering adjustment for the 1990s:* Report of a Commonwealth Expert Group on Women and Structural Adjustment, London: Commonwealth Secretariat Publications.

CONIA G.A, JOLLY R. and STEWART F. (UNITED NATIONS CHILDREN'S EMERGENCY FUND [UNICEF]) (1987) *Adjustment with a human face,* Oxford: University Press for UNICEF.

CORNIA G. A. (1996) "Investing in people: A much needed new focus for SAPs", *The Courier,* No. 159, pp. 48-52.

CORNIA G. A., Hoeven R. V. D., and MKANDAWIRE T. (1992) Africa's recovery in the 1990's: from stagnation and adjustment to human development, Basingstoke: The Macmillan Press Limited.

COURIER, (1983) "From central provision to local enablement", *The Courier* No. 81, Sept.- Oct., pp. 76-79.

COURIER, (1992) "The urban crisis", *The Courier* No. 131, Jan.- Feb., pp. 49-56.

COURIER, (1994) "Structural adjustment and poverty", *The Courier* No. 143 Jan.- Feb.

COURIER (1995) "World Bank and the IMF on trial: The Copenhagen hearing", *The Courier* No. 151, May -June pp. 52-53.

CRANO W. D. and BREWER M. B. (1986) *Principals and methods of social research,* Boston: Allyn and Bacon inc.

DAKA M. (1995) "The state of the construction industry in Zambia", *The Zambian Engineer,* April-September, pp. 5 -7.

DAVILA J. D. (1987) "Guinea Bissau's socialist; The politics of shelter in a small economy", *Third World Planning Review,* Vol. 9, No. 3, pp. 255-272.

DAVISON B. (1978) *Africa in modern history: the search for a new society,* London: Penguin books.

DEPARTMENT OF ENVIRONMENT [UK] (1977) "Housing policy -A consultative document", London: Her Majesty's Stationery Office.

DIJKSTRA A. G. (1996) "The Impact of Structural adjustment programs on Manufacturing: Lessons from Nicaragua", *World Development*, Vol. 24, No. 3, pp. 535-554.

DIRECT LABOUR COLLECTIVE (1978) "Building with direct labour; Local authority building and the crisis in the construction industry", 55 Mount Pleasant, London: Housing workshop of the conference of socialist economists.

DOWALL D. E. (1991) "The Land Market Assessment: A new tool for Urban management", Washington DC.: Urban Development Division, The World Bank.

DWYER D. J. (1979) "People and housing in the Third World cities; Perspectives on the problem of spontaneous settlements", London: Longman group Limited.

DYE T. R. (1976) *Policy analysis; What governments do, why they do it, and what difference it makes,* Alabama University: The University of Alabama Press.

ECONOMIST [The] (1995) "Southern African dreams of Unity", *The Economist,* September 2nd.

EDMONDS G.A. and MILES D.W.J. (1984) *Foundations for change: Aspects of the construction industry in developing countries*, London: Intermediate Technology Publications Limited.

ELKAN W. (1973) *An introduction to development economics,* Harmondsworth: Penguin books.

ELLIOT C. [ed.](1971) Constraints on the economic development of Zambia, Oxford University Press.

ERMISCH J. (1990) *Housing and the national economy*, Brookfield (USA): Avebury.

FADAHUNSI A. (1993) Devaluation: Implications for Employment, Inflation, Growth and Development, In: Olukoshi Adebayo O.(ed.), The politics of Structural Adjustment in Nigeria, Portsmouth, N.H.: Heinemann Educational Books, pp. 33- 53.

FERNANDEZ-WAGNER, R.E. (1994) "Supply of basic building materials for small-scale construction: Constraints under Structural Adjustment policies in Latin America: the case of Argentina." *Proceedings of the second symposium of the European Network for Housing Research: Housing for the urban poor: Housing, poverty and developing countries,* Birmingham, April, 1994.

FEWINGS P. (1991) "A building tender price index in Zambia and it's feasibility for forecasting", Unpublished MPhil. thesis, University of Bath, Sept.

FORCESE D. P. and STEPHEN R. [eds] (1970) Stages of social research: Contemporary perspectives, Englewood cliffs, N.J.: Prentice-Hill.

FOREST R., GORDON D. and MURIE A. (1996) "The Position of Former Council Homes in the Housing Market", *Urban studies*, Vol. 33, No. 1, pp. 125-136.

FORTMAN B. D. G. (1969) "The economics of Zambian Humanism", In Fortmann [ed.], After Mulungushi (Ed): , Nairobi: East African Publishing House.

FORTMAN B. D. G. (1969) "Humanism and the Zambian economic order", In: Fortman, After Mulungushi (Ed), Nairobi: East African Publishing House, pp. 95-114.

FORTMAN B. D. G. (1971) "Zambia's markets: Problems and opportunities",
In: Charles Elliot (Ed), Constraints on the economic development of Zambia, Oxford: University Press, 1971, pp. 191-232.

GEORGE S. (1976) *How the other half dies: the real reason for World hunger*, Harmondsworth: Penguin books.

GAKENHEIMER R. and BRANDO C. H. J. (1987) "Infrastructure standards",
In: Lloyd Rodwin (Ed), Shelter, settlement and development, Boston: Allen and Unwin, pp. 133-150.

GHAI D. and AlCANTARA C. H. (1991) "The crisis of the 1980's in Africa, Latin America and the Caribbean: An overview", In: Dharam Ghai (ed.), The IMF and the South: The social impact of crisis and Adjustment, London: Zed Books Limited, pp. 13-42.

GHANA, GOVERNMENT OF (1987) "Programme of actions to mitigate the social costs of adjustment", Accra: Government republic of Ghana

GLICKMAN H. (1988) *The crisis and challenge of African development,* New York: Greenwo Press.

GOOD R. C. (1973) *U.D.I. The international politics of the Rhodesian rebellion,* Princeton, N.H.. Princeton University Press.

GOODE W. J. and HATT P. K. (1952) *Methods in social research*, New York: McGraw-Hill book company Inc.

GOODMAN S. (1971) "The foreign exchange constraint," In Elliot C. (Ed.) Constraints on the economic development of Zambia, Oxford University Press, pp. 233-256

GRANT N. (1994) "Money Laundering: Problems and solutions for the financial system in Zambia", In: Deassis and Yikona (eds.), The quest for an enabling environment for development in Zambia, Ndola: Mission Press.

GRIMES O. F. Jr. (1976) *Housing for low-income urban families: Economics and policy in the Developing World*, Baltimore: The John Hopkins University Press (For the World Bank).

GROSH B. (1994) "Through the structural adjustment minefield: Politics in an era of economic liberation", In: Jennifer A Widner (ed.), Economic change and Politic liberalisation in Sub-Saharan Africa, Baltimore: The John Hopkins University Press, pp. 29-46.

HALL P. (1983) *Growth and development- an economic analysis*, Oxford: Martin Robertson and company.

HAMALENGWA M. (1992) *Class struggles in Zambia, 1889-1989 and the fall of Kenneth Kaunda, 1990-1991*, Lanham, Md.: University Press of America.

HAMEL J., DUFOUR S. and FORTIN D. (1993) *Case study methods*, Newbury Park, Calif.: Sage publications.

HANSENNE M. (1991) "The dilemma of the informal sector, Report of the Director-General, ILO", Geneva (Cited in UNCHS [ILO], 1995).

HARDOY J. E. and SATTERTHWAITE D. (1981) *Shelter; Need and Response- Housing, land and settlement policies in seventeen Third World Nations*, New York: John Wiley and sons.

HARRIS N. (1992) "Urban Development Strategies: Problems and issues of implementation", In: Niger Harris (ed.), The Challenge for Development countries
London: University College London, pp. 73-82.

HILDEBRANT M. and McAUSLAN P. (1992) "Issues of Urban Management",
In: Niger Harris (ed.), The Challenge for Developing countries, London: University College, pp. 93-103.

HILLEBRANBT P. M. (1974) *Economic theory and the construction industry,* London: The Macmillan Press Limited.

HOINVILLE G., JOWELL R. and Associates (1978) *Survey research practice*, London: Heinemann education books.

HOLLAND S. (1987) *The market economy- from micro to mesoeconomics*, London: Weidenfeld and Nicolson Limited.

HORN R. V. (1993) *Statistical indicators for the economic and social sciences*, Cambridge University Press.

HUTCHFUL E. (1987) *The IMF and Ghana - The confidential record*, London: Zed books Limited.

IHONVBERE J.O. (1996) *Economic crisis, civil society, and democratisation: The case of Zambia* Trenton, NJ: Africa World Press

INTERNATIONAL MONETARY FUND (1997) "International Financial Statistics" Washington D.C. IMF Publication Service, March and April

INTERNATIONAL LABOUR ORGANISATION (1995) "Year book of labour statistics", Geneva: The International Labour Organisation.

IYSH (1986) "NGOs and shelter", Mazingira institute and UNCHS [Habitat].

JOHNSON J. M. (1975) *Doing field research*, New York: The Free Press.

KANJI N. and JAZDOWSKA (1995) "Gender, structural adjustment and employment in Zimbabwe", *Third World Planning Review*, (17) (2), pp. 133-154.

KAUNDA K. D. (1967) "Humanism in Zambia", Lusaka: Government Printers.

KAUNDA K. D. (1969a) "Humanism in Zambia and a guide to its implementation", Lusaka: Government Printers.

KAUNDA K. D. (1974) "Humanism in Zambia, Part II", Government Republic of Zambia, Lusaka: Division of National Guidance.

KAUNDA K. D. (1969b) "Zambia towards economic independence", In Fortman (ed.), After Mulungushi, Nairobi: East African Publishing House, pp. 34-74.

KAUNDA K. D. (1969c) "Humanism in Zambia", In Fortman (ed.), After Mulungushi Nairobi: East African Publishing House, pp. 9-33.

KAUNDA M. (1995) "Resilience of the status quo: The sad story of the Zambian Lands Bill", 1994, *Journal of African Law*, Vol. 39, No. 1, pp. 87-92.

KEARE D. H. and PARRIS S. (1982) "Evaluation of shelter programs for the urban poor: principle findings", Washington DC.: The World Bank.

KILLICK T. [ed.](1982) Adjustment and financing in the developing World -The role of the international monetary fund, Washington DC.: International Monetary Fund and Overseas Development Institute

KLAASSEN L. H., HOOGLAND J. G.D. and Van PELT M. J.F. (1987) "Economic impact and implications of shelter investment", In RODWIN L. (ed.) Shelter, Settlement and Development, Boston: Allen and Unwin, pp. 35-59.

LANE D. (1978) *Politics and society in the USSR*, London: Martin Robertson and Company Ltd.

LANNING G. and MUELLER (1979) In Segal R (ed.) Africa undermined -A history of the mining companies and the underdevelopment of Africa, Harmondsworth: Pelican books.

LAQUIAN A. A (1983) *Basic housing; policies for urban sites, services and shelter in developing countries,* Ottawa, Canada: International Development Research Centre.

LEAN G. (1978) *Rich World, Poor World*, London: George Allen and Unwin Limited.

LEE M. (1985) "Myths of afford ability", *Third World Planning Review,* Vol. 7, No. 2, pp. 131-142.

LEMBA W. (1995) "Ambitious Mauritius", *Profit*, November, p. 14.

LEWIS P. J. (1965) *Building cycles and Britain's growth*, London: The Macmillan Press.

LIPTON M. (1977) *Why poor people stay poor -Urban bias in World development,* London: Temple Smith Limited.

LISK F. (1996) "Capacity building and management and development", *The Courier,* No. 159, pp. 53-55.

LUBABA N.C.H. (1993) "Prospectus for promotion of earth based building materials" Paper presented at the regional workshop on the production and utilisation of local building materials between the 20th and 21st May, 1993: Mulungushi Conference Centre, Lusaka-Zambia.

LUFADEJU E.O. (1987) "The role of shelter in economic development in Africa", *African Urbar Quarterly,* Vol. 2, No. 3, August, pp. 193- 200.

MAFICO C. J. C. (1991) *Urban low income housing in Zimbabwe,* Brookfield, [USA]: Avebury.

MALPEZZI S. (1990) "Urban housing and financial markets; Some international comparisons", *Urban Studies,* Vol. 27, No. 6, pp. 971-1022.

MALPEZZI S. ,TIPPLE A. and WILLIS K. (1989) "Cost and benefits of rent control in Kumasi-Ghana", World Bank-Urban Development Division.

MALPEZZI S. (1994) "Getting the incentives right: A reply to Robert-Jan Baken and Jan Van de Linden", *Third World Planning Review,* Vol. 16, No. 4, pp. 451-466.

MAMDANI M. (1991) "Uganda: Contradictions in the IMF Programme and Perspective", In: Dharam Ghai (ed.), The IMF and the South: The social Impact of crisis and Adjustment, London: Zed Books Limited, pp. 183-214.

MANDELA M. M. (1991) "The informal sector and youth unemployment: Prospects for labour absorption in Zambia", Unpublished PhD Thesis, The University of Sussex.

MARCUSE P. (1992) "Why conventional self-help projects won't work", In MATHEY Kosta (ed.), Beyond self-help housing, New York: Mansell publishing Limited, pp. 15-22.

MARTIN R. (1975) "Urbanisation, squatter settlements and upgrading" In Human settlements in Zambia, Report of a workshop at the University of Zambia. Lusaka, pp. 67-68.

MARTIN R. (1976) "Upgrading" In Slums or self-reliance? Urban growth in Zambia, Lusaka, University of Zambia: Institute for African Studies, pp. 86-101.

MASHAMBA M. S. (1990) "The informal housing sector and its development in Zambia", Unpublished MPhil. thesis - University of Newcastle upon Tyne, June.

MASHAMBA M. S. (1996) "Construction: An industry under siege", *Profit,* Vol. 4 No. 8, January, pp. 26- 28.

MEEN G. (1995) "Is Housing good for the Economy?" *Housing Studies,* Vol. 10, No. 3, pp. 405-424.

MERRETT S. [with Fred G.] (1982) *Owner occupation in Britain,* Boston: Routledge and Kegan Paul.

McCUTCHEON R.T. (1995) "Employment creation in public works: Labour-intensive construction in Sub-Saharan Africa: The implications for South Africa", *Habitat International* Vol. 19. No. 3 pp. 331-355.

McGUIRE C. (1981) *International housing policies,* Massachusetts: Lexington.

MINISTRY OF OVERSEAS DEVELOPMENT (1977) "A guide to the economic appraisal of projects in the developing countries", London: Her Majesty's stationery Office.

MKANDAWIRE T. (1991) "Crisis and Adjustment in sub-Saharan Africa", In: Dharam Ghai (ed.), The IMF and the South: The social impact of crisis and Adjustment, London: Zed Books Limited , pp. 80-94.

MOAVENZADEH F. (1987) "The construction industry", In RODWIN L.(ed.), Shelter, Settlement and Development, Boston: Allen and Unwin, pp 73-109.

MOSLEY P., SUBASAT T. and WEEKS J. (1995) "Assessing Adjustment in Africa", *World Development,* Vol. 23, No. 9, pp. 1459-1473.

MOSLEY P. and WEEKS J. (1993) "Has recovery begun? Africa's adjustment in the 1980's revisited", *World Development,* Vol. 21, No. 10, pp. 1583-1606.

MOVEMENT for MULTI-PARTY DEMOCRACY [MMD] (1991) "The party manifesto", The campaign committee, Lusaka: MMD-Campaign Committee.

MUKAJANGA A. D. (1982) "Management and development of resources for the building industry in Tanzania", Unpublished MPhil thesis, University of Newcastle Upon Tyne, June.

MUKALULA P. (1995) "Unemployment crisis in the construction industry: As a challenge to the Quantity Surveying Profession in the Prevailing Economic Climate", Paper presented at the Building and Quantity Surveying Chapter Seminar- Chainama Hotel- Lusaka, 27th July.

MULAISHO D. (1994) "The role of the Central bank in Economic liberalisation", In: Nathan Chilepa Deassis and Stuart makanka Yikona (eds.), The Quest for an enabling Environment for development in Zambia, Ndola: Mission Press, pp. 42-58.

MUMBA K. (1996) "Manufacturing: Engine for market -Driven Economy", Paper presented at ZACCI forum: Savoy Hotel in Ndola- Zambia, on the 12 January.

MURIE A., NINER P. and WATSON C. (1976) *Housing policy and the housing system,* London: George Allen and Unwin Limited.

MURISON H. S. and LEA J. p. (1979) *Housing in Third World countries; perspectives on policy and practice,* New York: ST. Martins Press inc..

MURPHY J. T. (1980) *Getting the facts; A fieldwork guide for evaluators and policy analysts,* Santa Monica, Calif.: Goodyear publishing company.

MUTUKWA M. (1996) "A lobby's dream budget", *Profit,* Vol. 4, No. 10, March, pp. 10-14.

MUTUKWA M. (1996b) "Companies worth looking at: Some good share prospects-Chilanga Cement PLC", *Profit,* Vol. 5, No. 3, August, pp. 29-31.

MUYABA A. E. (1994) "Partnership between governmental and non-governmental organisations in human settlements development, through training: The Zambian case, *Regional Development Dialogue,* Vol. 15, No. 2, Autumn, pp. 85-97.

MWANAWINA I. (1993) "Zambia", In Aderanti Adepoju, The Impact of structural adjustment on the population of Africa: the implications for education, health and employment, James Currey Ltd, pp. 69-77.

MWANZA M.N. [Kitwe City Council, Deputy Director of Housing] (1995) "The role of Government in the delivery proces of social housing" Working paper submitted to the National Committee for the formulation of National housing Policy.

MWASE N. (1995) "Urbanisation and Structural Adjustment Programmes: The Zambian experience", *The Courier,* No. 149, pp. 64-65.

NATIONAL HOUSING AUTHORITY (1978, 80, 84, 87, 89, 1991) "Annual Reports" National Housing Authority, Lusaka, Zambia.

NATIONAL HOUSING AUTHORITY (1995) "Population growth, Housing needs and housing" Working paper submitted to the National Committee for the formulation of National housing Policy.

NGO Development Caucus (1995) "The Copenhagen Alternative Declaration, World Summit for Social Development", Document on the internet (@wssd.apc.org.

NHKATA L. (1993) "Promoting Shelter Financing in Emerging Capital Markets: Proceedings of the symposium on Capital markets and shelter Finance Linkages in Africa", Lusaka-Zambia, 26 Th. May, pp. 27-28.

NOBBS J. (1983) *Sociology in context,* London: Macmillan Education Limited.

NOWZAD B. (1982) "Some issues and questions regarding debt of developing countries", In Tony Killick (ed.), Adjustment and financing in the developing World: The role of the International Monetary Fund, Washington DC.: The International Monetary Fund, pp. 155-169.

NSINGO K. (1988) "Problems and prospects of economic structural adjustment in Zambia", *The Courier,* No. 111, September- October, pp. 78-84.

OBERAI A.S. (1992) "Population growth, employment and poverty in Third World mega-cities", *The Courier,* No. 131, January - February, pp. 64-66.

OFORI G., HINDLE R. and HUGO F. (1996) "Improving the construction industry of South Africa: A strategy", *Habitat International* Vol. 20. No. 2, pp. 203-220

OLUKOSHI A. O. (1993) "Structural Adjustment and Nigerian industry", In: Olukoshi A.O. (ed.), The politics of Structural adjustment in Nigeria, Portsmouth, N.H.: Heinemann educational Books, pp. 54-74.

PAGNI L. (1988) "President Kenneth Kaunda: we want to develop our own resources", (interview), *The courier*, No. 111, Sept. -Oct., pp. 76-77.

PATTON M. Q. (1980) *Qualitative evaluation and research methods*, Newbury Park, Calif.: Sage publications.

PAYNE G. K. (1984) *Low-income housing in the developing world,* Chichester: John Wiley and sons Limited.

PAYNE G. K. (1977) *Urban housing in the Third World,* Boston: Roultledge and K. Paul.

PHILLIPS E.M. and PUGH D.S. ((1987) *How to get a PhD: Making the peaks and troughs of research*, Milton Keynes: Open University Press.

PICARD L. A. and GARRITY M. (1994) *Policy reform for sustainable development in Africa; The institution imperative,* Boulder: Lynne Rienner publishers.

POWELL G. C. (1980) *An economic history of the British building industry 1815- 1979,* London: The Architectural Press.

PRICE WATERHOUSE (1996) "The 1996 Zambia Budget Highlights", Lusaka: Price Lusaka: Waterhouse, January.

PROFIT (1996) "Someone has to pay!: The attitude of ZRA to complaints by local imports that they are hard hit by the smugglers", *Profit*, Vol. 4, No. 6, November, p. 12.

PROFIT (1996) "Public sector reforms hit: The programme has not been abandoned, only the retrenchments have been put off", *Profit*, Vol. 4, No. 11, April, pp. 12 and 15.

PROFIT (1996) "Housing for all.. by 2010: How realistic is the new national housing policy?", *Profit,* Vol. 5, No. 2, July, pp. 28-30.

PUGH C. (1980) *Housing in capitalist societies*, Westmead, England: Gower publishing company Limited.

PUGH C. (1990) *Housing and Urbanisation: A study of India*, New Delhi: Sage Publications.

PUGH C. (1989) "Housing policy reform in madras and the World Bank", *Third World Planning Review*, Vol. 11, No. 3, pp. 249-273.

PUGH C. (1993) "Housing policy development in development countries: The World Bank and internationalisation", 1972-1993, Article for *Cities*, June.

PUGH C. (1994) "The idea of enablement in housing sector development: The political economy of housing for development countries", Paper submitted to the Second symposium- *Housing for the urban poor: Housing, poverty and developing countries*
European Network for Housing Research.

PUGH C. (1992) "Land policies and low-income housing in the developing countries:, A review, with reference to Kenya and India", *Land Use Policy*, January, pp. 47-63.

PUGH C. (1995) "International Structural Adjustment and it's Sectoral and Spatial Impact", *Urban studies*, Vol. 32, No. 2, pp. 261-285.

PUGH C. (1996) "'Urban bias,' the political Economy of Development and Urban policies for developing countries", *Urban Studies*, Vol. 33, No. 7, pp. 1045-1060.

PUGH C. (1996) "Sustainability and Sustainable Cities", In: Cedric Pugh (ed.), Sustainability, the Environment and Urbanisation, London: Earthscan, 1996, pp. 135-178.

QUINN K. (1971) "Industrial relations in Zambia, 1935-69", in: Charles Elliott (ed.), Constraints on the economic development of Zambia, Oxford University Press, pp. 57-90.

RAGIN C. C. and BECKER H. S. (1992) *What is a case? Exploring the foundations of social inquiry*, Cambridge University Press.

RAKODI C. (1980) "Housing and the Urban poor in Lusaka" Cardiff, Department of Town Planning, University of Wales Institute of Science and Technology

RAKODI C. (1986) "Colonial urban policy and planning in Northern Rhodesia and its legacy", *Third World Planning Review*, Vol. 8, No. 3, pp. 193-217.

RAVENHILL J. (1986) *Africa in economic crisis*, London: The Macmillan Press Limited.

RAY R. (1979) *Housing economics and public policy*, London: Macmillan Press Limited.

REED David (1992) *Structural adjustment and the environment*, London: Earth scan publications Limited.

ROBERTSON J.T. (1978) "The housing sector: Perspective and prospects [National Housing Policy Conference], Lusaka: Ministry of Local Government and Housing, pp. 21-47.

RODWIN L.[ed.] (1987) Shelter, Settlement and Development, Boston: Allen and Unwin.

SANDBROOK R. (1991) "Economic crisis, Structural Adjustment and the state in Sub-Saharan Africa", In: Dharam Ghari (ed.), The IMF and the South: The social impact of crisis and Adjustment, London: Zed Books Limited, pp. 95-114.

SANDERSON M. (1993) "Betrayed by trade?", *Profit*, June, pp. 18-19.

SANDERSON M. (1995) "Zambia's income tax-benefit or burden?", *Profit*, July, pp. 9-11.

SARANTAKOS S. (1994) *Social research,* London: The Macmillan Press Limited.

SAVADOGO and WELTA (1992) "The impact of self-imposed Adjustment: The case of Burkina Faso", In Cornia *et al* (eds), Africa's recovery in the 1990s: From stagnation and adjustment to human development, Basingstoke: The Macmillan Press Limited, pp. 53-71.

SCHLYTER A. and SCHLYTER T. (1980) "George- The development of squatter settlement in Lusaka-Zambia". Stockholm: National Swedish Institute for Building Research.

SCHLYTER A. (1984) "Upgrading reconsidered; The George studies in retrospect", The National Swedish Institute for Building Research

SCHWARTZ H. and JACOBS J. (1979) *Qualitative sociology: A method of madness,* New York: The Free Press.

SEERS D. (1983) "Structuralism vs. Monetarism in Latin America: A reappraisal of a Great Debate, with lessons for Europe in the 1980s", In: JANSEN Karel (ed.), Monetarism, Economic Crisis and the Third World, London: Frank Cass and company.

SEGAL R. [ed.] (1979) Africa undermined: A history of the mining companies and the underdevelopment of Africa, Harmondsworth: Pelican Books.

SESHAMANI V. (1992) "The economic policies of Zambia in the 1980s: Towards structural transformation with a human focus", In Cornia *et al* (eds), Africa's recovery in the 1990s: From stagnation and adjustment to human development, Basingstoke: The Macmillan Press Limited, pp. 116-134.

SHELTER FORUM [Proceedings of the second shelter forum annual event] (1993) Legal Reform and access to Land: Opportunities and challenges, Nairobi, Kenya: Shelter forum sponsored by Ford Foundation

SHAW M. (1975) "Marxism and social science: the roots of social knowledge", London: Pluto Press.

SIMONS H.J. (1976) "Zambia's Urban Situation" In; Slums or self-reliance? Urban growth in Zambia, Lusaka, University of Zambia: Institute for African Studies, pp. 1-32.

SINHA R. (1995) "Economic reform in developing countries: some conceptual issues", *World Development,* Vol. 23, No. 4, pp. 557-575.

SKLAR R. L. (1974) "Zambia's response to the Rhodesian Unilateral declaration of independence", In: William Tordoff (ed.), Politics in Zambia, Manchester University Press, pp. 320-362.

SMITH H. W. (1991) *Strategies of social research,* Orlando, Florida: Holt, Rinehart and Winston Inc.

SOCIAL AND COMMUNITY PLANNING RESEARCH (1972) *Interviewers guidebook,* London: Social and Community Planning Research.

SPARR P. (1994) "What is Structural Adjustment?", In: Pemela Sparr (ed.), Mortgaging Women's lives: Feminist critiques of Structural Adjustment, Atlantic Highlands, N.J.: Zed Books Limited, pp. 1-12.

SPARR P. (1994) "Feminist critiques of Structural Adjustment", In: Pemela Sparr (ed.), Mortgaging Women's lives: Feminist critiques of Structural adjustment, Atlantic Highlands, N.J.: Zed Books Limited, pp. 13-39.

SPENCE R., WELLS J., and DUDLEY E. (1993) *Employment, building materials, and enabling strategies for urban development,* London: Intermediate Technology Publications.

SPENCE R. and MULLIGAN (1995) "Sustainable Development and the Construction Industry", *Habitat International* Vol. 19. No. 3, pp. 279-292.

STEWART F. (1994) "Are Adjustment policies in Africa consistent with long-run Development need?", In Vander Geest (ed.), Negotiating Structural Adjustment in Africa, London: James Currey, pp. 99-114.

STOKKE O. (1991) *Sustainable development,* London: Frank Cass and company Limited.

STRASSMAN P. W. (1982) *The transformation of urban housing*, Baltimore: The John Hopkins University Press.

STRASSMAN P. W. and WELLS J. [eds] (1988) The global construction industry: strategies for entry, growth and survival, London: Unwin Hyman Limited.

STRAUSS A. and CORBIN J. (1990) *Basics of qualitative research; Grounded theory procedures and techniques,* Newbury Park, Calif.: Sage Publications.

STREETEN P. (1981) *Development perspectives*, London: The Macmillan Press Limited.

STRICKLAND R.S. (1991) "Stabilisation strategies of the International Monetary Fund and the effects on income and welfare: The case of Zambia", The University of Sussex, Unpublished PhD thesis.

STRUENING E. L. and BREWER M. B. [eds] (1983) Handbook of evaluation research Beverly Hills: Sage publications

SUTERMEISTER R. A. (1963) *People and Productivity*, McGraw-Hill Book Company.

SWIFT R. (1994) "Squeezing the south; 50 years is enough", *New Internationalist*, No. 257, July.

TACKIE F. I. A. (1979) "The informal building industry in the context of urban housing", Unpublished MPhil thesis, University of Newcastle Upon Tyne.

TERNER D. I. (1972) "Technology and autonomy", In *Freedom to build,* London: The Macmillan Co., pp. 199-237.

TIMMINS N. (1990) "Fixing the poverty line: poverty and the trickle -down effect; does it work?", *Search* 6, August, pp. 14-16.

TIPPLE A. G. (1976) "Self-help housing policies in a Zambian mining town", *Urban Studies*, 13, pp. 167-169.

TIPPLE A.G. (1979) "Low cost housing policies in the Copperbelt towns of Northern Rhodesia/Zambia: An historical perspective", In Anne V. Akeroyd and Christopher R. Hill, *Collected paper: 4,* University of York, pp. 149- 163.

TIPPLE A. G. (1994a) "A matter of interface :the need for a shift in targeting housing interventions", *Habitat International,* Vol. 18, No. 4, pp. 1-15.

TIPPLE A. G. (1994b) "Employment from housing; A source for rapidly growing urban populations", *Cities* 11 (6), pp. 372-376.

TIPPLE A. G. (1994c) "The need for new Urban Housing in Sub-Saharan Africa: Problem or Opportunity", *African Affairs,* 93, pp. 587-608.

TIPPLE A.G. (1994d) "Employment implications of transformation activity: An introduction to the literature on housing and employment," Newcastle: University of Newcastle Upon Tyne

TODARO M. P. (1977) *Economic development in the Third World*, London: Longman Group Limited.

TODARO M. P. (1994) *Economic Development*, New York: Longman Group Limited.

TRIALOG (1995) *Shelter policies in socialist Third World nations, TRIALOG* 6.

TURNER J. F. C. (1976) *Housing by people; Towards Autonomy in Building Environments, Ideas in Progress,* London: Marion Boyors.

TURNER J. F. C. (1972) "Housing as a verb", In Turner and Ficther (eds.), Freedom to build, London: The Macmillan company, pp. 148-175.

TURNER J. F. C. (1980) "Housing: Its part in another development", In Housing process and physical form, The Aga Khan Awards, pp. 8-19.

TURNER J. F.C. (1996) "Tools for building community: An examination of 13 hypothesis", *Habitat International*, Vol. 20, No. 3, pp. 339-347.

TURNER P. (1995) "The regional expansion and decline of the Zambia construction industry", Policy consultative paper.

UNITED NATIONS (1994a) "Summary of the survey of economic conditions in the regions of Africa, 1993-1994", New York: United Nations.

UNITED NATIONS (1994b) "Preliminary version of the 1994 World survey on the role of Women in Development", United Nations, Economic and Social Council.

UNITED NATIONS [Committee for development planning] (1994c) "Economic and social council official records, 1994", United Nations Department for Policy Co-ordination and Sustainable Development (DPCSD).

UNITED NATIONS [WOODFIELD A.] (1989) *Housing and economic adjustment,* London: Taylor and Francis.

UNITED NATIONS [Department of Economic and Social Affairs] (1976) "Housing policy guidelines for developing countries", United Nations Publications.

UNITED NATIONS [Department of Economic and Social Affairs] (1959) "Economic Survey of Africa since 1950", New York: United Nations Publications.

UNITED NATIONS [Commission on the status of Women] (1995) "Review and appraisal of the implementation of the Nairobi forward-looking strategies for the advancement of Women", United nations Publications.

UNITED NATIONS (1996) "Statistical Yearbook" New York: United Nations Publications centre.

UNITED NATIONS (1997) "Monthly Bulletin of Statistics" New York: United Nations Publications, January issue.

UNCED, (1992) "Promoting sustainable human settlement development" [Agenda 21, Chapter 7], United Nations Conference on Environment and Development, Rio de Janeiro, 14 June.

UNCHS [HABITAT] (1976) "Effects of economic conditions on human settlements", UNCHS.

UNCHS [HABITAT] (1977) "Formulation of national settlement policies and strategies", Nairobi: UNCHS.

UNCHS [HABITAT] (1983) "Land for housing the poor: UN seminar of experts", Stockholm, Sweden: Swedish Building Research Council, March.

UNCHS [HABITAT] (1984a) "An approach to the analysis of national human settlements institutional arrangements", Nairobi: UNCHS.

UNCHS [HABITAT] (1984b) "Land for human settlements -Review and analysis of the present situation: Recommendations for national and international action", Nairobi: UNCHS.

UNCHS [HABITAT] (1984c) "Government policy guidelines to improve the efficiency of the construction industry", Nairobi: UNCHS.

UNCHS [HABITAT] (1985) "Planning of the construction industry, with emphasis in the use of indigenous production factors", Nairobi: UNCHS.

UNCHS [HABITAT] (1985b) "The reformulation of building acts, regulations and codes in African countries", Nairobi: UNCHS.

UNCHS [HABITAT] (1991) "Evaluation of experience with initiating enabling shelter strategies", Nairobi: UNCHS.

UNCHS [ILO] (1995) *Shelter Provision and Employment Generation*, Geneva: International Labour Organisation in conjunction with UNCHS.

UNCHS [HABITAT] (1996) *An Urbanising world: Global Report on Human Settlements- 1996,* Oxford University Press.

United Nations Development Programme [UNDP] (1996) "Istanbul Declaration on Human Settlements", internet: http://www.undp.org/un/habitat/agenda/ist-dec.html.

URBAN EDGE (1989) "NGO's gain clout, recognition", *Urban edge*, Vol. 13, No. 8 October.

VAN ARKADIE B. (1983) "The IMF prescription for Structural Adjustment in Tanzania: A comment", In: JANSEN Karel (ed.): Monetarism, economic crisis and the Third World, London: Frank Cass and company.

VAN DER GEEST W. [ed.] (1994) Negotiating Structural Adjustment in Africa, London: James Currey.

Van HUYCK A. (1980) "The contribution of Housing to National Development: Can more be achieved?", In Linda Safran (ed.), Housing process and physical form, The Aga Khan Awards, pp. 1- 7.

VAN VLIET W. and VAN WEESEP J. (1990) *Government and housing; Developments in seven counties,* Newbury Park, Calif.: Sage publications Limited.

WALSH M. and WILCOTT-HENRIE L. (1987) "Investing in Women", In: Homes above all: Homelessness and the Misallocation of Global Resources, Building and Social Housing Foundation, pp. 217-223.

WARD B. (1962) *The rich nations and the poor nations*, W.W. Norton and company inc.

WARREN M. (1993) *Economics for the built environment*, Oxford: Butterworth-Heinemann Ltd.

WEKWETE K.H. (1994) "Human settlements analysis and needs assessment in Zambia", (Publisher not stated).

WELLS J. (1985) "The Role of Construction in Economic Growth and Development", *Habitat International* Vol. 9. No. 1, pp. 55-70.

WELLS J. (1993) "Building materials for housing: Comment on the report of the executive Director of UNCHS", *Habitat International* Vol. 17. No. 4, pp. 89-92.

WELLS J. (1995) "Population, Settlements and the Environment: The provision of organic materials for shelter", *Habitat International* Vol. 19. No. 1, pp. 73-90.

WIDNER J. A. (1994) "Political reform in Anglophone and Francophone African countries", In: Widner J. A. W. (ed.)., Economic change and political liberalization in Sub-Saharan Africa, Baltimore: The John Hopkins University Press, pp. 49-79.

WORLD BANK (1976) "Urban Sector Survey: Republic of Zambia" Development Economics Department: The d bank.

WORLD BANK (1976) "The World Bank: Questions and answers", Washington DC.: The World Bank.

WORLD BANK [COHEN M. A.] (1983) "Learning by doing; World Bank lending for urban development; 1972-82", Washington D. C.: The World Bank.

WORLD BANK (1987) *World Development Report 1987*, Oxford: Oxford University Press.

WORLD BANK (1991) "Urban Policy and Economic Development: An Agenda for the 1990s", Washington DC.: The World Bank.

WORLD BANK (1993a) *Housing; Enabling markets to work,* Washington D. C.: The World Bank.

WORLD BANK (1993b) *The East Asia Miracle: Economic Growth and Public Policy,* New York: Oxford University Press.

WORLD BANK (1994a) "Zambia Poverty Assessment: Volume 1- Main Report", World Bank, Human Resources Division, African Region Office.

WORLD BANK (1994b) A*djustment in Africa-Reforms, Results and the Road Ahead,* Oxford university Press.

WORLD BANK (1995) *World Development Report 1995: Workers in an integrating World-World development indicators*, Oxford: Oxford University Press

WORLD BANK (1996a) "Privatisation in Africa: The Zambian example", Knowledge Networks, Information and Technology Centre.

WORLD BANK (1996b) "Sub-Saharan Africa: Improving Institutional and Economic", Performance, Knowledge Networks, Information and Technology Centre.

WORLD BANK (1996c) "The Social Dimensions of Adjustment: A General Assessment", Knowledge Networks, Information and Technology Centre.

WORLD BANK (1996d) "Property Tax in Anglophone Africa: Issues and Constraints", Knowledge Networks, Information and Technology Centre.

YEUNG Y. (1993) "Globalization and World cities in the developing countries", Paper presented at the Workshop of the International Urban Research Project sponsored by the Ford Foundation, held in Cairo on the 12-18 February.

YIN R. K. (1989) *Case study research-Design and methods,* Thousands Oaks: Sage publications.

ZAHLAN A. B. (1984) *The Arab Construction industry,* St. Martin's Press

ZAMBIA INVESTMENT CENTRE " Status Reports" (Quarterly reports on the internet) [http://www.zamnet.zm/zambus/zic/zichome.html]

ZAMBIA PRIVATISATION AGENCY [ZPA] (1995) "Privatisation: A whole New Philosophy", Zambia Privatisation Agency document on the internet, (http://www.zamnet.zm/zamnet/Welcome.html)

ZAMBIA PRIVATISATION AGENCY [ZPA] (1997) "Privatisation progress report, march, 1997", Document on the internet, (see above).

ZAMBIA, Republic of (1965) "An outline of the Transitional Development Plan", Lusaka: Government printers.

ZAMBIA, Republic of (1970) "The First National Development Plan, 1966- 1970", Lusaka: Government printers, July

ZAMBIA, Republic of (1971) "Second National Development Plan, Jan. 1972- Dec. 1976", Lusaka: Government printers.

ZAMBIA, Republic of (1974) "Report on Employment and Earnings (1969-1971)", Lusaka: Central Statistical Office, October.

ZAMBIA, Republic of (1979) "Third National Development Plan, 1979- 1983", Lusaka: Government printers, October.

ZAMBIA, Republic of (1988) "New Economic Recovery Programme, July, 1987- March, 1988 (Progress report No. 2)", Lusaka: National Commission for Development Planning, June.

ZAMBIA, Republic of (1989) "New Economic Recovery Programme [Fourth National Development Plan 1989-1993]", Volumes I and II, Lusaka: Government Printers, January.

ZAMBIA, Republic of (1992) "Economic report 1991", Lusaka: National Commission for Development Planning, January.

ZAMBIA, Republic of (1991) "Monthly Digest of Statistics", Lusaka: Central Statistical Office, July-October.

ZAMBIA, Republic of (1994) "Employment Trends", Lusaka: Central Statistical Office, September.

ZAMBIA, Republic of (1995) "National Policy on the Construction Industry", Draft Document drawn by the Ministry of Works and Supply, Lusaka.

ZAMBIA, Republic of (1996a) "Economic Report: 1995", Lusaka: National Commission for Development Planning.

ZAMBIA, Republic of [Ministry of Local Government and Housing] (1996b) "National Housing Policy", Lusaka: Ministry of Local Government and Housing, January.

ZAMBIA, Republic of [Ministry of Finance and Economic Development] (1996c) "Macroeconomic indicators", Ministry of Finance, December, Lusaka, Zambia.

ZAMBIA, Republic of (1996d) "National Programme of Road Maintenance", National Roads Board, Lusaka: Ministry of Works and Supply. Documents collected during survey.

APPENDIX I
SURVEY QUESTIONS

The contribution of the construction industry to national development: Opportunities and constraints under the Structural Adjustment Programme and the Enabling Shelter Strategy in Zambia

Date_____ Name of Interviewee_____
Case No._____ Place_____

SURVEY QUESTIONS FOR CONTRACTORS

1. What is the name of this company/organisation?

1. Name of company	
2. Based at (Location)	

2. What is the form of ownership?

1. Sole proprietorship	
2. Partnership	
3. Family	
4. Public company	
5. Private company	
6. Other: specify	

3. Is this a wholly Zambian owned company?

1. Wholly Zambian company	
2. Jointly Zambian and foreign owned(proportion)	
3. Wholly foreign owned	

4. When was this company formed?

Year:	

5. Did you start this company?

a. Yes
b. No

1. Bought the company	
2. Inherited the company	
3. Nationalised by state	
4. Other: specify	

6. Why did you choose to go into the construction materials business?

1. Construction reference background	
2. Investment returns (profit margins)	
3. High construction demand	
4. Inherited business	
5. Other: specify	

7. How did you finance your initial investment in this company?

1. Loan	
2. Pension	
3. Money Lender	
4. Savings	
5. Family help	
6. Bank	
7. Other: specify	

8. How much was this initial investment?

Year:	
Investment in Zambian Kwacha:	

9. How much do you think this company is worth now: if you were to sell it, how much would you sell it for?

Value of company in Zambian Kwacha:	

10. What are the main activities of this company?

1. Houses	
2. Other buildings	
3. Civil engineering	
4. Specialised subcontracting	
5. Plant hire	
6. Consultancy	
7. Other: specify	

11. Of these activities above, what proportion is new works and maintenance?

1. New works and extensions only	
2. Upto 75 % new works/ extensions: and upto 25 % maintenance/ repairs	
3. Upto 50 % new works/ extensions: and upto 50 % maintenance repairs	
4. Upto 25 % new works/ extensions: and upto 75 % maintenance/ repairs	
5. Routine maintenance and repairs only	

12. Who are your largest client/customer?

1. Central Government	
2. Local Government	
3. Parastatal companies	
4. The copper mining industry	
5. Private companies (taken together)	
6. Private individuals (taken together)	
7. Other- specify	

13. How do you get your contracts/ jobs?

1. Tendering	
2. Personal contracts	
3. Reference	
4. Other: specify	

14. How many workers do you have?

Total Number:	
Male:	
Female:	

15. Of these (above) how many are;

Skill	Female	Male
1. Professionals (degree/diploma)		
2. Skilled(certificate/craftsmanship)		
3. Semi-skilled(informal training)		
3. Unskilled labourers(No in/formal training)		

16. How many workers did you start with, or how many did you have 5 years ago? (Which ever is the longest)

No. of workers:	

17. Do you have immediate plans of increasing/decreasing the number of workers, and why?

Labour Plans		Reasons
1. Increasing		
2. Decreasing		
3. Maintaining same No.		
4. Not sure		

18. Do you have an internal training programme/ apprenticeship? If yes how many?

Yes:	
No. :	

19. Do you have any other training scheme for your workers or would be workers?

1. University level- Degree	
2. College level- Diploma	
3. Trades school- Certificate	
4. Any other- specify	
5. None	

20. Do you employ workers without practical experience, if yes how many?

YES:	**No.**
NO:	**go to No. 22**

21. Do you have any expatriate workers working for you, if yes how many and why?

a. If none go to Question No. 22

b.

Yes	
No. of expatriates	

c. Reasons

1. No qualified Zambians available	
2. Foreign based company	
3. Other: specify	

22. What are your plans for their replacements?

1. No immediate plans	
2. Replacements by Zambians in the next 5 years	
3. Not sure	
4. Other: specify	

23. Is your wage /salary bill wholly in Zambian Kwacha?

Wholly US $ / British Pounds:	
Wholly Zambian Kwacha:	
Partially Zambian Kwacha and US$/UK£	

24. How did you determine your wage/salary structure above?

1. Trade Unions	
2. Government legislation	
3. Productivity/profit and loss	
4. Other: specify	

25. Where do you buy your construction materials from?

material	Kitwe	Other Town- Specify	Retail Shop ()	Informal Traders (SIDO)	Direct Import
1. Bricks/ blocks					
2. Electrical goods					
3. Cement					
4. Timber					
5. Roofing sheets					
6. Iron and steel					
7. Glass					
8. Window & door frames					
9. Aggregates					
10. Plumbing items					
11. Other: specify					

26. Why do you obtain them from these sources(above)?
    1. Only source available
    2. Good quality
    3. Cheap price
    4. Credit facility available
    5. Other specify

material	1	2	3	4	5
1. Bricks/ blocks					
2. Electricals					
3. Cement					
4. Timber					
5. Roofing sheets					
6. Iron and steel					
7. Glass					
8. Window & door frames					
9. Aggregates					
10. Plumbing items					
11. Other: specify					

27. Do you face problems in getting these materials, if yes what are these problems?

material	yes/no	problem
1. Bricks/ blocks		
2. Electricals		
3. Cement		
4. Timber		
5. Roofing sheets		
6. Iron and steel		
7. Glass		
8. Window & door frames		
9. Aggregates		
10. Plumbing items		
11. Other: specify		

28. Do you prefer imported construction raw materials to local ones, if yes why?

Material	YES	NO	Cheap	Good quality	Easily available
1. Electrical items					
2. Window/ door frames					
3. Plumbing items					
4. Timber					
5. Roofing sheets					
6. Other: specify					
7. Other: specify					

29. What measures would help in promoting local building materials?

1. Reduce price of local materials	
2. Research & Improve standards of local materials	
3. Impose tax on imported materials	
4. Other-specify	
5. Don't know	

30. Does your company have any plans of substituting imported materials with local materials in the next 5 years?

1. No plans	
2. Not sure	
3. Yes-(Specify materials)	

31. Do you know of any research or efforts done in promoting local materials, if yes which ones?

1. No idea on local materials research activities	
2. Yes(Specify research activities)	

32. How did you get your first contract?

1. Tendering	
2. Friends/ relatives	
3. Through previous employment/ contract	
4. Other: specify	

33. How many contracts do you have?

1. Contracts on site	
2. Contracts whose documents have already been signed	
3. Contracts awaiting signing of documents	
4. Other; specify	

34. How many contracts have you had in the last 5 years or since you began operations (if started in the last 5 years)

Number of contracts (jobs);	

35. Of these contracts how many have not been completed successfully?

Number of uncompleted contracts (jobs)	

36. What are the reasons for not completing these projects?

1. Client ran out of money	
2. High inflation overran the initial budget	
3. Contractual problems between contractor & the client/ consultants	
4. Non availability of materials	
5. Project failed to meet building/ planning/ specifications regulations	
6. Other: specify	

37. What is the biggest contract (in money terms) that you have ever had and what was the contract sum?

1. Biggest contract (Nature of job)	
2. Contract sum	
3. Contract time	

38. What is the smallest contract that you have ever had and what was the contract sum and time?

1. Smallest contract (nature of contract)	
2. Contract sum	
3. Contract time	

39. On average how long does it take you to complete a project?

Average contract period	

40. Do you sub-contract any of your works, if yes, which ones and do you intend doing these jobs in-house in future?

TRADE	Sub-contract-YES/NO	In-house in future YES/NO
1. Woodwork		
2. Roadwork's		
3. Electrical		
4. Plumbing		
5. Roofing		
6. Other: specify		
7. Other: specify		
8. Other: specify		

41. How do you choose your sub-contractors?

1. Client chooses	
2. Consultants recommends	
3. Previous working knowledge	
4. Friends/ relatives	
5. Other: specify	

42. What machines do you use in your company?

MACHINE	No.	No. Owned by firm	No. planned to be bought
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

43. When you finally buy these machines, will you then have to retrench some workers, if yes, how many? (by trade)

1. No retrenchment	
2. Yes retrenchment	
3. Number to be retrenched	

44. What form of assistance do you receive from either the central or local government and NGO's?

1. Staff training
2. Business advice or Construction based Information technology
3. Subsidies/Grants
4. Loans
5. Other -specify

a. Central Government	**1**	**2**	**3**	**4**	**5**
b. Local Government	**1**	**2**	**3**	**4**	**5**
c. NGO's or CBO's	**1**	**2**	**3**	**4**	**5**

45. But what assistance would you prefer to be given to you and by who?

1. Staff training
2. Business advice or Construction based Information technology
3. Subsidies/Grants
4. Loans
5. Other -specify_____

a. Central Government	**1**	**2**	**3**	**4**	**5**
b. Local Government	**1**	**2**	**3**	**4**	**5**
c. NGO's or CBO's	**1**	**2**	**3**	**4**	**5**

46. Of the following below which measures have helped your business in the last 5 years?

Policy measure	Helped	not helped	Comments
1. Easy availability of Forex			
2. Non intervention of Government in the construction industry			
3. Import liberalisation			
4. Export liberalisation			
5. Withdrawal of subsidies and grants to parastatals			
6. Withdrawal of housing allowances			
7. Privatisation of public companies			
8. Relaxing interest rates ceilings			
9. Selling of council houses			
10. Infrastructure rehabilitation			

47. On the other hand what are the negative things that have happened in the last 5 years that tended to slow down your business?

1. High cost of construction materials	
2. High interest and inflation rates	
3. Low demand for construction services	
4. Stiff competition from informal private companies	
5. Stiff competition from foreign companies	
6. Other -specify	

48. Do you face any problems in getting financial assistance, if yes what problems?

a. No
b. Yes

1. Company not recognised or registered	
2. Statutory requirements	
3. Lack of collateral	
4. Foreign registered and owned	
5. Other- specify	

49. What form of financial assistance would you want given to you?

1. Loans with low interest rates	
2. Long term investment loans	
3. Tax exemptions on capital investment	
4. Loans at market rates	
5. Other-specify	

50. Has the liberalisation of the Kwacha affected your business, if yes how?

a. No
b. Yes

1. High production costs(due to increase in raw materials)	
2. Smooth business operations (due to easy availability of FOREX)	
3. Slow down in business(due to cash flow problems)	
4. Increase in business(due to availability of imported materials)	
5. Other specify-	

51. In your opinion what measures should be put in place to boast the construction sector?

1. Increase Central and Local government capital expenditure	
2. Reduce building and planning standards	
3. Reduce and stabilise interest & inflation rates	
4. Government intervention to promote construction industry	
5. Other specify	

52. Do you have immediate plans to expand your company?

1. No plans (why)	
2. Expand firm within Kitwe	
3. Expand firm to other towns(specify towns)	
4. Expand firm to other counties(specify countries)	

53. Do you plan to remain in this type of business?

1. Yes	
2. Not sure	
3. No	

54. If not, what do you intend doing?

1. Go into other form of business	
2. Leave this country and pursue construction business	
3. Retire/ close down	
4. Not sure	
5. Other specify	

55. How do you see the future of this industry(construction) in the next 5 years?

1. Getting worse	
2. Likely to remain the same	
3. Not sure	
4. Likely to improve	
5. Other -specify	

56. Would reducing building and planning standards help your business in any way?

	Yes	No
Building standards		
Planning standards		

57. Which specific building and planning standards would you want reduced or changed, and why?

1. Building standards_____

2. Planning standards_____

The contribution of the construction industry to national development: Opportunities and constraints under the Structural Adjustment Programme and the Enabling Shelter Strategy in Zambia

Date_____ Name of Interviewee_____
Case No._____ Place_____

SURVEY QUESTIONS FOR MANUFACTURERS OF CONSTRUCTION MATERIALS

1. What is the name of this company/organisation?

1. Name of company	
2. Based at (Location)	

2. What is the form of ownership?

1. Sole proprietorship	
2. Partnership	
3. Family	
4. Public company	
5. Private company	
6. Other: specify	

3. Is this a wholly Zambian owned company?

1. Wholly Zambian company	
2. Jointly Zambian and foreign owned(proportion)	
3. Wholly foreign owned	

4. When was this company formed?

Year:	

5. Did you start this company?

a. Yes
b. No

1. Bought the company	
2. Inherited the company	
3. Nationalised by state	
4. Other: specify	

6. Why did you choose to go into the construction materials business?

1. Construction reference background	
2. Investment returns (profit margins)	
3. High construction demand	
4. Inherited business	
5. Other: specify	

7. How did you finance your initial investment in this company?

1. Loan	
2. Pension	
3. Money Lender	
4. Savings	
5. Family help	
6. Bank	
7. Other: specify	

8. How much was this initial investment?

Year:	
Investment in Zambian Kwacha:	

9. How much do you think this company is worth now: if you were to sell it, how much would you sell it for?

Value of company in Zambian Kwacha:	

10. What are the main activities of this company?

1. Manufacturing of construction materials	
2. Supply of construction materials	
3. Importation of construction materials	
4. Exporting construction materials	
5. Other -specify	

11. Who are your largest client/customer?

1. Central Government	
2. Local Government	
3. Parastatal companies	
4. The copper mining industry	
5. Private companies (taken together)	
6. Private individuals (taken together)	
7. Other- specify	

12. How do you get to sell most of your products?

1. Tendering	
2. Advertising	
3. Personal contacts	
4. Reference	
5. Other: specify	

13. How many workers do you have?

Total Number:	
Male:	
Female:	

14. Of these how many are

Skill	Female	Male
1. Professionals (degree/diploma)		
2. Skilled(certificate/craftsmanship)		
3. Semi-skilled(informal training)		
3. Unskilled labourers(No in/formal training)		

15. How many workers did you start with, or how many did you have 5 years ago? (Which ever is the longest)

No. of workers:	

16. Do you have immediate plans of increasing/decreasing the number of workers, and why?

Labour Plans		Reasons
1. Increasing		
2. Decreasing		
3. Maintaining same No.		
4. Not sure		

17. Do you have an internal training programme/ apprenticeship? If yes how many?

Yes:	
No. :	

18. Do you have any other training scheme for your workers or would be workers?

1. University level- Degree	
2. College level- Diploma	
3. Trades school- Certificate	
4. Any other- specify	
5. None	

19. Do you employ workers without practical experience, if yes how many?

YES:	**No.**
NO:	**go to No. 22**

20. Do you have any expatriate workers working for you, if yes how many and why?

a. If none go to Question No. 22

b.

Yes	
No. of expatriates	

c. Reasons

1. No qualified Zambians available	
2. Foreign based company	
3. Other: specify	

21. What are your plans for their replacements?

1. No immediate plans	
2. Replacements by Zambians in the next 5 years	
3. Not sure	
4. Other: specify	

22. Is your wage /salary bill wholly in Zambian Kwacha?

Wholly US $ / British Pounds:	
Wholly Zambian Kwacha:	
Partially Zambian Kwacha and US$/UK£	

23. How did you determine your wage/salary structure above?

1. Trade Unions	
2. Government legislation	
3. Productivity/profit and loss	
4. Other: specify	

24. Where do you buy your construction materials from?

material	Kitwe	Other Town-Specify	Shop	Informal Traders	Direct Import
1. Iron and steel					
2. Timber					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

25. Why do you obtain them from these sources(above)?
    1. Only source available
    2. Good quality
    3. Cheap price
    4. Credit facility available
    5. Other specify

material	1	2	3	4	5
1. Iron and steel					
2. Timber					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

26. Do you face problems in getting these materials, if yes what are these problems?

material	yes/no	problem
1. Iron and steel		
2. Timber		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

27 Do you prefer imported construction raw materials to local ones, if yes why?

Material	YES	NO	Cheap	Good quality	Easily available
1. Timber					
2. Steel					
3.					
4.					
5.					
6.					
7.					

28. What measures would help in promoting local building materials?

1. Reduce price of local materials	
2. Research & Improve standards of local materials	
3. Impose tax on imported materials	
4. Other-specify	
5. Don't know	

29. Does your company have any plans of substituting imported materials with local materials in the next 5 years?

1. No plans	
2. Not sure	
3. Yes-(Specify materials)	

30. Do you know of any research or efforts done in promoting local materials, if yes which ones?

1. No idea on local materials research activities	
2. Yes(Specify research activities)	

31. On average how long does it take you to produce your products?

Product	**Average production time**
1.	
2.	
3.	
4.	
5.	
6.	
7.	

32. Do you subcontract any of your works, if yes, which ones and do you intend doing these jobs in-house in future?

TRADE	Sub-contract-YES/NO	In-house in future-YES/NO
1. Research/design		
2. Retailing		
3. Export		
4. Installation		
5. Other-specify		
6. Other- specify		
7. Other- specify		
8. Other- specify		

33. How do you choose you subcontractors?

1. Research /design consultants recommends	
2. Previous working knowledge	
3. Friends /relatives	
4. Other -specify	

34. What machines do you use in your company?

MACHINE	No.	No. Owned by firm	No. Planned to be bought
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

35. When you finally buy these machines, will you then have to retrench some workers and how many? (Labourers, mixers, etc.)

1. No retrenchment	
2. Retrenchment (Yes)	
3. Number	

36. What form of assistance do you receive from either the central or local government and NGO's?

1. Staff training
2. Business advice or Construction based Information technology
3. Subsidies/Grants
4. Loans
5. Other -specify

a. Central Government	**1**	**2**	**3**	**4**	**5**
b. Local Government	**1**	**2**	**3**	**4**	**5**
c. NGO's or CBO's	**1**	**2**	**3**	**4**	**5**

37. But what assistance would you prefer to be given to you and by who?

1. Staff training
2. Business advice or Construction based Information technology
3. Subsidies/Grants
4. Loans
5. Other -specify_____

a. Central Government	**1**	**2**	**3**	**4**	**5**
b. Local Government	**1**	**2**	**3**	**4**	**5**
c. NGO's or CBO's	**1**	**2**	**3**	**4**	**5**

38. Of the following below which measures have helped your business in the last 5 years?

Policy measure	Helped	not helped	Comments
1. Easy availability of Forex			
2. Non intervention of Government in the construction industry			
3. Import liberalisation			
4. Export liberalisation			
5. Withdrawal of subsidies and grants to parastatals			
6. Withdrawal of housing allowances			
7. Privatisation of public companies			
8. Relaxing interest rates ceilings			
9. Selling of council houses			
10. Infrastructure rehabilitation			

39. On the other hand what are the negative things that have happened in the last 5 years that tended to slow down your business?

1. High cost of construction materials	
2. High interest and inflation rates	
3. Low demand for construction services	
4. Stiff competition from informal private companies	
5. Stiff competition from foreign companies	
6. Other -specify	

40. Do you face any problems in getting financial assistance, if yes what problems?

a. No
b. Yes

1. Company not recognised or registered	
2. Statutory requirements	
3. Lack of collateral	
4. Foreign registered and owned	
5. Other- specify	

41. What form of financial assistance would you want given to you?

1. Loans with low interest rates	
2. Long term investment loans	
3. Tax exemptions on capital investment	
4. Loans at market rates	
5. Other-specify	

42 Has the liberalisation of the Kwacha affected your business, if yes how?

a. No
b. Yes

1. High production costs(due to increase in raw materials)	
2. Smooth business operations (due to easy availability of FOREX)	
3. Slow down in business(due to cash flow problems)	
4. Increase in business(due to availability of imported materials)	
5. Other specify-	

43. In your opinion what measures should be put in place to boast the construction sector?

1. Increase Central and Local government capital expenditure	
2. Reduce building and planning standards	
3. Reduce and stabilise interest & inflation rates	
4. Government intervention to promote construction industry	
5. Other specify	

44. Do you have immediate plans to expand your company?

1. No plans (why)	
2. Expand firm within Kitwe	
3. Expand firm to other towns(specify towns)	
4. Expand firm to other counties(specify countries)	

45. Do you plan to remain in this type of business?

1. Yes	
2. Not sure	
3. No	

46. If not, what do you intend doing?

1. Go into other form of business	
2. Leave this country and pursue construction business	
3. Retire/ close down	
4. Not sure	
5. Other specify	

47. How do you see the future of this industry(construction) in the next 5 years?

1. Getting worse	
2. Likely to remain the same	
3. Not sure	
4. Likely to improve	
5. Other -specify	

48. Would reducing building and planning standards help your business in any way?

	Yes	No
Building standards		
Planning standards		

49. Which specific building and planning standards would you want reduced or changed, and why?

1. Building standards_____

_____

_____

_____

2. Planning standards_____

_____

_____

_____

The contribution of the construction industry to national development: Opportunities and constraints under the Structural Adjustment Programme and the Enabling Shelter Strategy in Zambia

Date_____ Name of Interviewee_____
Case No._____ Place_____

SURVEY QUESTIONS FOR SUPPLIERS /TRADES OF CONSTRUCTION MATERIALS

1. What is the name of this company/organisation?

Name of company	
Based at (location)	

2. What is the form of ownership?

1. Sole proprietorship	
2. Partnership	
3. Family	
4. Public company	
5. Private company	
6. Other: specify	

3. Is this a wholly Zambian owned company?

1. Wholly Zambian company	
2. Jointly Zambian and foreign owned(proportion)	
3. Wholly foreign owned	

4. When was this company formed?

Year:	

5. Did you start this company?

a. Yes
b. No

1. Bought the company	
2. Inherited the company	
3. Nationalised by state	
4. Other: specify	

6. Why did you choose to go into the construction materials business?

1. Construction reference background	
2. Investment returns (profit margins)	
3. High construction demand	
4. Inherited business	
5. Other: specify	

7. How did you finance your initial investment in this company?

1. Loan	
2. Pension	
3. Money Lender	
4. Savings	
5. Family help	
6. Bank	
7. Other: specify	

8. How much was this initial investment?

Year:	
Investment in Zambian Kwacha:	

9 How much do you think this company is worth now: if you were to sell it, how much would you sell it for?

Value of company in Zambian Kwacha:	

10. What are the main activities of this company?

1. Manufacturing of construction materials	
2. Supply of construction materials	
3. Importation of construction materials	
4. Exporting construction materials	
5. Other -specify	

11 Who is your largest client/customer?

1. Central Government	
2. Local Government	
3. Parastatal companies	
4. The Mines	
5. Private companies	
6. Private individuals	
7. Other- specify	

12. How do you get to sell most of your products?

1. Open market/ shop	
2. Tendering/advertising	
3. Personal contacts	
4. Reference	
5. Other: specify	

13. How many workers do you have?

Total Number:	
Male:	
Female:	

14. Of these how many are

Skill	Female	Male
1. Professionals (degree/diploma)		
2. Skilled(certificate/craftsmanship)		
3. Semi-skilled(informal training)		
3. Unskilled labourers(No in/formal training)		

15. How many workers did you start with, or how many did you have 5 years ago? (Which ever is the longest)

No. of workers:	

16. Do you have immediate plans of increasing/decreasing the number of workers, and why?

Labour Plans		Reasons
1. Increasing		
2. Decreasing		
3. Maintaining same No.		
4. Not sure		

17 Do you have an internal training programme/ apprenticeship? If yes how many?

Yes:	
No. :	

18. Do you have any other training scheme for your workers or would be workers?

1. University level- Degree	
2. College level- Diploma	
3. Trades school- Certificate	
4. Any other- specify	
5. None	

19. Do you employ workers without practical experience, if yes how many?

YES:	**No.**
NO:	**go to No. 22**

20. Do you have any expatriate workers working for you, if yes how many and why?

a. If none go to Question No. 22

b.

Yes	
No. of expatriates	

c. Reasons

1. No qualified Zambians available	
2. Foreign based company	
3. Other: specify	

21. What are your plans for their replacements?

1. No immediate plans	
2. Replacements by Zambians in the next 5 years	
3. Not sure	
4. Other: specify	

22. Is your wage /salary bill wholly in Zambian Kwacha?

Wholly US $ / British Pounds:	
Wholly Zambian Kwacha:	
Partially Zambian Kwacha and US$/UK£	

23. How did you determine your wage/salary structure above?

1. Trade Unions	
2. Government legislation	
3. Productivity/profit and loss	
4. Other: specify	

24. Where do you buy your construction materials from?

material	Kitwe	Other Town-Specify	Shop	Informal Traders	Direct Import
1. Iron and steel					
2. Timber					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

25. Why do you obtain them from these sources(above)?

1. Only source available
2. Good quality
3. Cheap price
4. Credit facility available
5. Other specify

material	1	2	3	4	5
1. Iron and steel					
2. Timber					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

26. Do you face problems in getting these materials, if yes what are these problems?

material	yes/no	problem
1. Iron and steel		
2. Timber		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

27. Do you prefer imported construction materials to local ones, if yes why?

Material	YES	NO	Cheap	Good quality	Easily available
1. Timber					
2.					
3.					
4.					
5.					
6.					
7.					

28. What measures would help in promoting local building materials?

1. Reduce price of local materials	
2. Research & Improve standards of local materials	
3. Impose tax on imported materials	
4. Other-specify	
5. Don't know	

29. Does your company have any plans of substituting imported materials with local materials in the next 5 years?

1. No plans	
2. Not sure	
3. Yes-(Specify materials)	

30. Do you know of any research or efforts done in promoting local materials, if yes which ones?

1. No idea on local materials research activities	
2. Yes(Specify research activities)	

31. On average how long does it take you to replenish your stock?

Stock	Average replenishing time
1.	
2.	
3.	
4.	
5.	
6.	
7.	

32. What form of assistance do you receive from either the central or local government and NGO's?

1. Staff training
2. Business advice or Construction based Information technology
3. Subsidies/Grants
4. Loans
5. Other -specify

a. Central Government	**1**	**2**	**3**	**4**	**5**
b. Local Government	**1**	**2**	**3**	**4**	**5**
c. NGO's or CBO's	**1**	**2**	**3**	**4**	**5**

33 But what assistance would you prefer to be given to you and by who?

1. Staff training
2. Business advice or Construction based Information technology
3. Subsidies/Grants
4. Loans
5. Other -specify_____

a. Central Government	**1**	**2**	**3**	**4**	**5**
b. Local Government	**1**	**2**	**3**	**4**	**5**
c. NGO's or CBO's	**1**	**2**	**3**	**4**	**5**

34. Of the following below which measures have helped your business in the last 5 years?

Policy measure	Helped	not helped	Comments
1. Easy availability of Forex			
2. Non intervention of Government in the construction industry			
3. Import liberalisation			
4. Export liberalisation			
5. Withdrawal of subsidies and grants to parastatals			
6. Withdrawal of housing allowances			
7. Privatisation of public companies			
8. Relaxing interest rates ceilings			
9. Selling of council houses			
10. Infrastructure rehabilitation			

35. On the other hand what are the negative things that have happened in the last 5 years that tended to slow down your business?

1. High cost of construction materials	
2. High interest and inflation rates	
3. Low demand for construction services	
4. Stiff competition from informal private companies	
5. Stiff competition from foreign companies	
6. Other -specify	

36. Do you face any problems in getting financial assistance, if yes what problems?

a. **No**
b. **Yes**

1. Company not recognised or registered	
2. Statutory requirements	
3. Lack of collateral	
4. Foreign registered and owned	
5. Other- specify	

37. What form of financial assistance would you want given to you?

1. Loans with low interest rates	
2. Long term investment loans	
3. Tax exemptions on capital investment	
4. Loans at market rates	
5. Other-specify	

38. Has the liberalisation of the Kwacha affected your business, if yes how?

a. No
b. Yes

1. High production costs(due to increase in raw materials)	
2. Smooth business operations (due to easy availability of FOREX)	
3. Slow down in business(due to cash flow problems)	
4. Increase in business(due to availability of imported materials)	
5. Other specify-	

39. In your opinion what measures should be put in place to boast the construction sector?

1. Increase Central and Local government capital expenditure	
2. Reduce building and planning standards	
3. Reduce and stabilise interest & inflation rates	
4. Government intervention to promote construction industry	
5. Other specify	

40. Do you have immediate plans to expand your company?

1. No plans (why)	
2. Expand firm within Kitwe	
3. Expand firm to other towns(specify towns)	
4. Expand firm to other counties(specify countries)	

41 Do you plan to remain in this type of business?

1. Yes	
2. Not sure	
3. No	

42. If not, what do you intend doing?

1. Go into other form of business	
2. Leave this country and pursue construction business	
3. Retire/ close down	
4. Not sure	
5. Other specify	

43. How do you see the future of this industry(construction) in the next 5 years?

1. Getting worse	
2. Likely to improve	
3. Not sure	
4. No change	
5. Other -specify	

44 Would reducing building and planning standards help your business in any way?

	Yes	No
Building standards		
Planning standards		

45. Which specific building and planning standards would you want reduced or changed, and why?

1. Building standards_____

2. Planning standards_____

The contribution of the construction industry to national development: Opportunities and constraints under the Structural Adjustment Programme and the Enabling Shelter Strategy in Zambia

Date_____ Name of Interviewee_____
Case No._____ Place_____

SURVEY QUESTIONS FOR CONSULTANTS IN THE CONSTRUCTION INDUSTRY

1. What is the name of this company/organisation?

1. Name of company	
2. Based at (Location)	

2. What is the form of ownership?

1. Sole proprietorship	
2. Partnership	
3. Family	
4. Public company	
5. Private company	
6. Other: specify	

3. Is this a wholly Zambian owned company?

1. Wholly Zambian company	
2. Jointly Zambian and foreign owned(proportion)	
3. Wholly foreign owned	

4. When was this company formed?

Year:	

5. Did you start this company?

a. Yes
b. No

1. Bought the company	
2. Inherited the company	
3. Nationalised by state	
4. Other: specify	

6. Why did you choose to go into the construction materials business?

1. Construction reference background	
2. Investment returns (profit margins)	
3. High construction demand	
4. Inherited business	
5. Other: specify	

7. How did you finance your initial investment in this company?

1. Loan	
2. Pension	
3. Money Lender	
4. Savings	
5. Family help	
6. Bank	
7. Other: specify	

8. How much was this initial investment?

Year:	
Investment in Zambian Kwacha:	

9. How much do you think this company is worth now: if you were to sell it, how much would you sell it for?

Value of company in Zambian Kwacha:	

10. What are the main activities of this company?

1. Houses	
2. Other buildings	
3. Civil engineering	
4. Specialised subcontracting	
5. Plant hire	
6. Consultancy	
7. Other: specify	

11. Of these activities above, what proportion is new works and maintenance?

1. New works and extensions only	
2. Upto 75 % new works/ extensions: and upto 25 % maintenance/ repairs	
3. Upto 50 % new works/ extensions: and upto 50 % maintenance repairs	
4. Upto 25 % new works/ extensions: and upto 75 % maintenance/ repairs	
5. Routine maintenance and repairs only	

12. Who are your largest client/customer?

1. Central Government	
2. Local Government	
3. Parastatal companies	
4. The copper mining industry	
5. Private companies (taken together)	
6. Private individuals (taken together)	
7. Other- specify	

13. How do you get your consulting contracts/ jobs?

1. Tendering/competitions	
2. Personal contracts	
3. Reference	
4. Other: specify	

14. How many workers do you have?

Total Number:	
Male:	
Female:	

15. Of these (above) how many are;

Skill	**Female**	**Male**
1. Professionals (degree/diploma)		
2. Skilled(certificate/craftsmanship)		
3. Semi-skilled(informal training)		
3. Unskilled labourers(No in/formal training)		

16. How many workers did you start with, or how many did you have 5 years ago?
(Which ever is the longest)

No. of workers:	

17. Do you have immediate plans of increasing/decreasing the number of workers, and why?

Labour Plans		**Reasons**
1. Increasing		
2. Decreasing		
3. Maintaining same No.		
4. Not sure		

18. Do you have an internal training programme/ apprenticeship? If yes how many?

Yes:	
No. :	

19. Do you have any other training scheme for your workers or would be workers?

1. University level- Degree	
2. College level- Diploma	
3. Trades school- Certificate	
4. Any other- specify	
5. None	

20. Do you employ workers without practical experience, if yes how many?

YES:	**No.**
NO:	**go to No. 22**

21. Do you have any expatriate workers working for you, if yes how many and why?

a. If none go to Question No. 22

b.

Yes	
No. of expatriates	

c. Reasons

1. No qualified Zambians available	
2. Foreign based company	
3. Other: specify	

22. What are your plans for their replacements?

1. No immediate plans	
2. Replacements by Zambians in the next 5 years	
3. Not sure	
4. Other: specify	

23. Is your wage /salary bill wholly in Zambian Kwacha?

Wholly US $ / British Pounds:	
Wholly Zambian Kwacha:	
Partially Zambian Kwacha and US$/UK£	

24 How did you determine your wage/salary structure above?

1. Trade Unions	
2. Government legislation	
3. Productivity/profit and loss	
4. Other: specify	

25. In your opinion, what measures would help you specify local construction materials?

1. Reduce price of local materials	
2. Research & Improve standards of local materials	
3. Impose tax on imported materials	
4. Other-specify	
5. Don't know	

26. Do see your company specifying more local construction materials in the next 5 years?

1. No plans	
2. Not sure	
3. Yes-(Specify materials)	

27. Do you know of any research or efforts done in promoting local materials, if yes which ones?

1. No idea on local materials research activities	
2. Yes(Specify research activities)	

28. How did you get your first contract?

1. Tendering	
2. Friends/ relatives	
3. Through previous employment/ contract	
4. Other: specify	

29. How many consultancy contracts do you have?

1. Contracts on site	
2. Contracts whose documents have already been signed	
3. Contracts awaiting signing of documents	
4. Other; specify	

30. How many contracts have you had in the last 5 years or since you began operations (if started in the last 5 years)

Number of contracts (jobs);	

31. Of these contracts how many have not been completed successfully?

Number of uncompleted contracts (jobs)	

32. What are the reasons for not completing these projects?

1. Client ran out of money	
2. High inflation overran the initial budget	
3. Contractual problems between contractor & the client/ consultants	
4. Non availability of materials	
5. Project failed to meet building/ planning/ specifications regulations	
6. Other: specify	

33. What is the biggest contract (in money terms) that you have ever had and what was the contract sum?

1. Biggest contract (Nature of job)	
2. Contract sum	
3. Contract time	

34 What is the smallest contract that you have ever had and what was the contract sum and time?

1. Smallest contract (nature of contract)	
2. Contract sum	
3. Contract time	

35. On average how long does it take you to complete a project?

Average contract period	

36. Do you sub-contract any of your works, if yes, which ones and do you intend doing these jobs in-house in future?

TRADE	Sub-contract- YES/NO	In-house in future YES/NO
1. Structures		
2. Roadwork's		
3. Electrical		
4. Plumbing		
5. Quantities		
6. Other: specify		
7. Other: specify		
8. Other: specify		

37. How do you choose your sub-contractors?

1. Client chooses	
2. Consultants recommends	
3. Previous working knowledge	
4. Friends/ relatives	
5. Other: specify	

38. What consultancy aids (e.g. computers) do you use in your company?

MACHINE/CONSULTANCY AID	No.	No. Owned by firm	No. planned to be bought
1.			
2.			
3.			
4.			
5.			

39 When you finally buy these machines, will you then have to retrench some workers, if yes, how many? (by trade)

1. No retrenchment	
2. Yes retrenchment	
3. Number to be retrenched	

40. What form of assistance do you receive from either the central or local government and NGO's?

1. Staff training
2. Business advice or Construction based Information technology
3. Subsidies/Grants
4. Loans
5. Other -specify

a. Central Government	1	2	3	4	5
b. Professional Institute	1	2	3	4	5
c. NGO's or CBO's or other	1	2	3	4	5

41. But what assistance would you prefer to be given to you and by who?

1. Staff training
2. Business advice or Construction based Information technology
3. Subsidies/Grants
4. Loans
5. Other -specify_____

a. Central Government	1	2	3	4	5
b. Professional Institute	1	2	3	4	5
c. NGO's or CBO's or other	1	2	3	4	5

42. Of the following below which measures have helped your business in the last 5 years?

Policy measure	Helped	not helped	Comments
1. Easy availability of Forex			
2. Non intervention of Government in the construction industry			
3. Import liberalisation			
4. Export liberalisation			
5. Withdrawal of subsidies and grants to parastatals			
6. Withdrawal of housing allowances			
7. Privatisation of public companies			
8. Relaxing interest rates ceilings			
9. Selling of council houses			
10. Infrastructure rehabilitation			

43. On the other hand what are the negative things that have happened in the last 5 years that tended to slow down your business?

1. High cost of construction materials	
2. High interest and inflation rates	
3. Low demand for construction services	
4. Stiff competition from informal private companies	
5. Stiff competition from foreign companies	
6. Other -specify	

44 Do you face any problems in getting financial assistance, if yes what problems?

a. No
b. Yes

1. Company not recognised or registered	
2. Statutory requirements	
3. Lack of collateral	
4. Foreign registered and owned	
5. Other- specify	

45. What form of technical/business assistance would you want given to you?

1. Business information and technology	
2. Research findings in the industry	
3. Periodic seminars and workshops on current issues	
4. Certain protection from foreign firms by Government	
5. Other-specify	

46. Has the liberalisation of the Kwacha affected your business, if yes how?

a. No
b. Yes

1. High production costs(due to increase in raw materials)	
2. Smooth business operations (due to easy availability of FOREX)	
3. Slow down in business(due to cash flow problems)	
4. Increase in business(due to availability of imported materials)	
5. Other specify-	

47. In your opinion what measures should be put in place to boast the construction sector?

1. Increase Central and Local government capital expenditure	
2. Reduce building and planning standards	
3. Reduce and stabilise interest & inflation rates	
4. Government intervention to promote construction industry	
5. Other specify	

48 Do you have immediate plans to expand your company?

1. No plans (why)	
2. Expand firm within Kitwe	
3. Expand firm to other towns(specify towns)	
4. Expand firm to other counties(specify countries)	

49. Do you plan to remain in this type of business?

1. Yes	
2. Not sure	
3. No	

50. If not, what do you intend doing?

1. Go into other form of business	
2. Leave this country and pursue construction business	
3. Retire/ close down	
4. Not sure	
5. Other specify	

51. How do you see the future of this industry(construction) in the next 5 years?

1. Getting worse	
2. Likely to remain the same	
3. Not sure	
4. Likely to improve	
5. Other -specify	

52. Would reducing building and planning standards help your business in any way?

	Yes	No
Building standards		
Planning standards		

53. Which specific building and planning standards would you want reduced or changed, and why?

1. Building standards_____

2. Planning standards_____

APPENDIX II Annual and monthly economic indicators (1991-1996)

Year /and month	Exchange Rate Kwacha to US $	Savings Account rate	Commercial Bank Base rates (Weighted)	Inflation rate Annual/Monthly rise CPI 1975=100	Treasury bills yield: 28 days	Treasury bills yield: 91 days	Treasury bills yield: 128 days
1991	64.63	33.00	46.00	118.00			
1992	172.21	46.00	54.00	200.00			
1993	231.40	N/A	N/A	91.40			
1994,Jan.	644.72	62.2	93.6	97.50	148.0	90.6	115.5
Feb.	641.23	63.9	97.7	102.40	146.3	101.4	111.0
March	680.16	64.5	95.0	104.40	132.3	81.4	108.2
April	702.48	64.8	91.4	107.30	130.9	98.8	109.0
May	689.13	61.4	88.1	109.90	107.3	118.8	108.1
June	698.67	53.5	78.3	112.00	82.8	89.6	90.4
July	674.38	44.6	70.7	113.10	68.0	77.7	75.1
August	669.42	36.9	61.5	113.80	56.3	68.2	66.3
Sept.	667.36	31.5	53.7	114.70	41.0	53.9	47.6
Oct.	665.69	22.1	43.4	116.40	21.5	29.4	26.3
Nov	667.17	14.7	38.5	118.10	16.7	18.9	19.6
Dec.	680.81	12.8	36.2	122.10	21.1	21.5	21.3
1995, Jan.	688.65	13.5	38.1	127.30	26.6	25.1	23.4
Feb.	769.57	20.2	39.0	130.60	30.3	26.4	23.5
March	797.08	22.3	40.7	133.30	35.9	29.7	27.5
April	802.06	22.6	40.8	133.70	37.9	30.9	27.1
May	829.00	24.3	45.7	134.00	43.8	39.3	29.9
June	893.51	26.3	48.7	136.70	47.1	45.6	30.3
July	929.71	27.6	49.6	140.30	48.7	48.9	41.2
August	940.09	28.6	61.5	140.60	47.7	49.9	48.0
Sept	942.01	28.0	53.7	144.50	42.5	45.3	46.2
Oct.	941.74	26.9	43.4	153.00	38.8	40.1	42.1
Nov.	941.80	27.1	47.4	156.90	39.9	39.8	38.2
Dec.	947.15	28.7	47.7	160.50	42.0	41.2	38.7
1996, Jan.	984.90	28.9	48.2	164.60	43.7	43.8	41.9
Feb.	1,039.35	29.3	50.0	168.70	46.9	45.0	43.8
March	1,135.47	29.5	50.5	171.20	48.1	46.8	46.6
April	1,232.98	28.6	51.2	185.50[1]	49.2	49.3	49.3
May	1,240.92	26.6	52.2	188.40	52.6	52.7	51.8
June	1,241.03	29.9	54.2	192.50	53.5	52.8	53.1
July	1,259.12	30.7	54.6	193.90	54.7	53.3	54.3
August	1,267.86	32.3	55.2	199.40	55.1	53.2	53.4
Sept.	1,266.74	32.4	56.1	202.20	56.4	54.1	52.8
Oct.	1,269.03	30.2	56.4	204.20	57.6	57.9	55.6
Nov.	1,269.83	28.3	57.0	209.50	57.2	59.2	60.0
Dec.	1,288.27	27.1	57.4	218.5	57.6	58.6	61.8

Source: Ministry of Finance; Various 'Profit' and Government Valuation Department reports

[1]From April 1996, weighted average annual rise in inflation is based on three categories: urban high, urban low and non-urban and taken at Index 1994=100.

Appendix III

Buildings Department registered, materials suppliers, contractors and consultants categories

Category	Value	Personnel	Plant and Equipment for contractors only
General Maintenance	Up to K15 000:00	4 Tradesmen/women	Any mode of transport (on hire basis/ or capacity to hire)
GI	From K15,000:00 to K20,000:00	1 Technician and 4 Tradesmen	1 Pick-up 1 Concrete mixer
GII	From K20,000:00 to K50,000:00	2 Technicians and 4 Tradesmen	1 Pick-up 2 Concrete mixers
GIII	From K50,000:00 to K120,000: 00	1 Professional, 2 Technicians, and 5 Tradesmen	1 Tipper 2 Pick-ups 2 Concrete mixers
GIV	From K50,000:00 to K250,000:00	3 Professionals 4 Technicians and 10 Tradesmen	2 Tippers 2 Pick-ups 4 Concrete mixers
GV	From K250,000 to K unlimited	5 Professionals 6 Technicians and 20 Tradesmen	4 Tippers 5 Pick-ups 6 Concrete mixers

2. Plumbing and air conditioning

Main contract value range equivalent to:

P1	General maintenance to GII
PII	GIII to GV

3. Electric

E	General maintenance
E1	GI to GII
EII	GIII to GV

4. Piling

P	Main contract value range equivalent GV only

APPENDIX IV: CORRELATION OF VARIOUS CONSTRUCTION VARIABLES IN THE STUDY

	Sawnwood	Cement	Mining	Construction	GFCF	Total Formal employment	Formal housing stock	Informal housing stock
Cement	0.313							
Mining	-0.433	-0.466						
Construction	-0.851	-0.505	0.808					
GFCF	-0.445	-0.712	0.474	0.446				
Employment	-0.926	-0.378	0.687	0.972	0.377			
Formal housing	0.833	0.637	-0.733	-0.973	-0.590	-0.949		
Informal housing	0.833	0.637	-0.733	-0.973	0.590	-0.949	1.000	
Formal employment (field survey)	-0.885	-0.638	0.726	0.972	0.584	0.949	-1.000	-1.000
Informal employment (field survey)	0.883	0.637	-0.733	-0.973	-0.590	-0.949	1.000	1.000

Source: Mashamba, 1997